

GenCore version 5.1.6
Copyright (c) 1993 - 2004 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: September 14, 2004, 00:47:19 ; Search time 132 Seconds
(without alignments)
1413.950 Million cell updates/sec

Title: US-09-294-539-4

Perfect score: 2952

Sequence: 1 MEPTSHVTNFAFSDSDASV.....RSLGSSSSSTSGAIRPRR 582

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1335176 seqs, 320689617 residues

Total number of hits satisfying chosen parameters: 1335176

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA.*
1: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep.*
2: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep.*
3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep.*
4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep.*
5: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep.*
6: /cgn2_6/ptodata/2/pubpaa/PCTUS_PUBCOMB.pep.*
7: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep.*
8: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep.*
9: /cgn2_6/ptodata/2/pubpaa/US09A_PUBCOMB.pep.*
10: /cgn2_6/ptodata/2/pubpaa/US09B_PUBCOMB.pep.*
11: /cgn2_6/ptodata/2/pubpaa/US09C_PUBCOMB.pep.*
12: /cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep.*
13: /cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep.*
14: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep.*
15: /cgn2_6/ptodata/2/pubpaa/US10C_PUBCOMB.pep.*
16: /cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep.*
17: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep.*
18: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2934	99.4	582	10	US-09-848-841-10
2	2907.5	98.5	615	15	US-10-374-780A-597
3	2907.5	98.5	615	16	US-10-437-963-153749
4	1737	58.8	576	14	US-10-328-675A-4
5	1672.5	56.7	588	8	US-08-908-884-14
6	1672.5	56.7	588	9	US-09-908-323-14
7	1672.5	56.7	588	14	US-10-328-675A-2
8	1629	55.2	604	14	US-10-328-675A-64
9	1425.5	48.3	335	12	US-10-425-114-68962
10	1276	43.2	593	8	US-08-908-884-3
11	1276	43.2	593	9	US-09-908-323-3
12	1276	43.2	593	10	US-09-934-455-74
13	1276	43.2	593	10	US-09-848-841-17
14	1276	43.2	593	12	US-10-225-066A-954
15	1276	43.2	593	13	US-10-073-035-3
					Sequence 10, Appl
					Sequence 597, App
					Sequence 153749,
					Sequence 4, Appl
					Sequence 14, Appl
					Sequence 2, Appl
					Sequence 64, Appl
					Sequence 68962, A
					Sequence 3, Appl
					Sequence 3, Appl
					Sequence 74, Appl
					Sequence 17, Appl
					Sequence 954, App
					Sequence 3, Appl

16	1276	43.2	593	15	US-10-225-068-242	Sequence 242, App
17	1276	43.2	593	15	US-10-374-780A-48	Sequence 48, Appl
18	1222.5	41.4	579	14	US-10-328-675A-6	Sequence 6, Appl
19	1213.5	41.1	600	14	US-10-328-675A-20	Sequence 20, Appl
20	1213.5	41.1	601	10	US-09-934-455-434	Sequence 434, App
21	1213.5	41.1	601	12	US-10-412-699B-814	Sequence 814, App
22	1213.5	41.1	601	14	US-10-328-675A-72	Sequence 72, Appl
23	1213.5	41.1	601	15	US-10-374-780A-2092	Sequence 2092, Ap
24	1124	38.1	532	12	US-10-424-599-164227	Sequence 164227, A
25	1124	38.1	532	12	US-10-425-114-38340	Sequence 38340, A
26	1117.5	37.9	624	15	US-10-374-780A-1466	Sequence 1466, Ap
27	1117.5	37.9	624	16	US-10-437-963-122865	Sequence 122865,
28	1117.5	37.9	635	10	US-09-848-841-16	Sequence 16, Appl
29	1060.5	35.9	591	14	US-10-328-675A-66	Sequence 66, Appl
30	1045.5	35.4	592	13	US-10-047-593-2	Sequence 2, Appl
31	1045.5	35.4	592	13	US-10-047-593-4	Sequence 4, Appl
32	1045.5	35.4	609	14	US-10-318-780-11	Sequence 11, Appl
33	1045	35.4	607	14	US-10-318-780-10	Sequence 10, Appl
34	1033.5	35.0	571	12	US-10-424-599-217392	Sequence 217392,
35	1031	34.9	586	14	US-10-328-675A-8	Sequence 8, Appl
36	1031	34.9	586	15	US-10-374-780A-2062	Sequence 2062, Ap
37	1012	34.3	501	16	US-10-767-701-44737	Sequence 44737, A
38	1009	34.2	574	14	US-10-328-675A-70	Sequence 70, Appl
39	995	33.7	475	14	US-10-318-780-4	Sequence 4, Appl
40	987	33.4	455	10	US-09-848-841-12	Sequence 12, Appl
41	971.5	32.9	601	14	US-10-328-675A-18	Sequence 18, Appl
42	915	31.0	204	16	US-10-767-701-53491	Sequence 53491, A
43	846.5	28.7	409	12	US-10-425-114-39468	Sequence 39468, A
44	844.5	28.6	409	14	US-10-318-780-21	Sequence 21, Appl
45	841	28.5	465	12	US-10-425-114-56637	Sequence 56637, A

ALIGNMENTS

RESULT 1
US-09-848-841-10
; Sequence 10, Application US/09848841
; Publication No. US2003017411A1
; GENERAL INFORMATION:
; APPLICANT: E. I. du Pont de Nemours and Company
; APPLICANT: Butler, Karla
; APPLICANT: Falco, Carl
; APPLICANT: Panodu, Omolayo O.
; APPLICANT: Fang, Yiwen
; APPLICANT: Han, Feng
; APPLICANT: Heppard, Elmer
; APPLICANT: Liu, Zhan-Bin
; APPLICANT: Miao, Gou-Hau
; APPLICANT: Odell, Joan
; APPLICANT: Rafalski, Antoni
; TITLE OF INVENTION: Disease Resistance Factors
; FILE REFERENCE: B01252 US NAI
; CURRENT APPLICATION NUMBER: US/09/848,841
; CURRENT FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: 60/107,242
; PRIOR FILING DATE: 1998-11-05
; PRIOR APPLICATION NUMBER: US99/25,953
; PRIOR FILING DATE: 1999-10-04
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 10
; LENGTH: 582
; TYPE: PRT
; ORGANISM: Oryza sativa
US-09-848-841-10

Query Match 99.4%; Score 2934; DB 10; Length 582;

Best Local Similarity 99.5%; Pred. No. 4.3e-261;

Matches 579; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 1 MEPTSHVTNFAFSDSDASVEGDADADADVEALRRRLSDNLAAAFRSPEDFAFLADARIA 60

Db 1 MEPPTSHVTNAPSDFSASVEEGDADADVEALRRLSDNLAAAFRSPEDFAFLADARIA 60
Qy 61 VPGGGGGGDLRHVCVLSARSPLRGVFAFAAAAAGGGGDSERLELRELLGGGEE 120
Db 61 VPGGGGGGDLRHVCVLSARSPLRGVFAFAAAAAGGGGDSERLELRELLGGGEE 120
Qy 121 VEVGYEARLRLVLDYLSRGVGLPKAACLCVDEDCAHVGCHPAPAFMAQVLFAASTFOVA 180
Db 121 VEVGYEARLRLVLDYLSRGVGLPKAACLCVDEDCAHVGCHPAPAFMAQVLFAASTFOVA 180
Qy 181 ELTNLFORRLDLVDLKVDEVDNLLILSVANLCKSKMLERCLDMVVRSLDMITLEKS 240
Db 181 ELTNLFORRLDLVDLKVDEVDNLLILSVANLCKSKMLERCLDMVVRSLDMITLEKS 240
Qy 241 LPPDVIKQIIDARLSGLISPENKGFNKHVRRIHRAALSDDDVLRMLLREGQTNLDDA 300
Db 241 LPPDVIKQIIDARLSGLISPENKGFNKHVRRIHRAALSDDDVLRMLLREGQTNLDDA 300
Qy 301 FALHYAVEHCDSKITTELLDLALADVNRHNPGRGYTVLHIAARRRREPKEIIVSLITKGARPA 360
Db 301 FALHYAVEHCDSKITTELLDLALADVNRHNPGRGYTVLHIAARRRREPKEIIVSLITKGARPA 360
Qy 361 DVTFDGRKAVQISKRLTKQGDYFGVTEGKPSKDRLCIEILQAEERDPOLGEASVSLA 420
Db 361 DVTFDGRKAVQISKRLTKQGDYFGVTEGKPSKDRLCIEILQAEERDPOLGEASVSLA 420
Qy 421 MAGESLRGRLLYLENRVALARIMFPWEARVAMDIQVDTGLEFNLGSGANPPPERQRTTV 480
Db 421 MAGESLRGRLLYLENRVALARIMFPWEARVAMDIQVDTGLEFNLGSGANPPPERQRTTV 480
Qy 481 DLNESPFFIMKEHRLARMTALSKTVELGKRFPPRCNSNVLDKIMDDTDPVSLGRDTSABKR 540
Db 481 DLNESPFFIMKEHRLARMTALSKTVELGKRFPPRCNSNVLDKIMDDTDPVSLGRDTSABKR 540
Qy 541 KRPHLDQVLOKAFHEDKEENDRSGLSSSSSSSTSGAIRPRR 582
Db 541 KRPHLDQVLOKAFHEDKEENDRSGLSSSSSSSTSGAIRPRR 582

RESULT 2
US-10-374-780A-597

; Sequence 597, Application US/10374780A
; Publication No. US20040019927A1
; GENERAL INFORMATION:
; APPLICANT: Sherman, Bradley K
; APPLICANT: Riechmann, Jose Luis
; APPLICANT: Jiang, Cai-Zhong
; APPLICANT: Heard, Jacqueline E
; APPLICANT: Haake, Volker
; APPLICANT: Creelman, Robert A
; APPLICANT: Ratcliffe, Oliver
; APPLICANT: Adam, Luc J
; APPLICANT: Reuber, T. Lynne
; APPLICANT: Keddle, James
; APPLICANT: Broun, Pierre E
; APPLICANT: Pilgrim, Marsha L
; APPLICANT: Dubell III, Arnold T
; APPLICANT: Pineda, Omaira
; APPLICANT: Yu, Guo-Liang
; TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES IN PLANTS
; FILE REFERENCE: MEI-0047 CIP
; CURRENT APPLICATION NUMBER: US/10/374,780A
; CURRENT FILING DATE: 2003-02-25
; PRIOR APPLICATION NUMBER: 09/837,944
; PRIOR FILING DATE: 2001-04-18
; PRIOR APPLICATION NUMBER: 60/310,847
; PRIOR FILING DATE: 2001-08-09
; PRIOR APPLICATION NUMBER: 09/934,455
; PRIOR FILING DATE: 2001-08-22
; PRIOR APPLICATION NUMBER: 60/336,049
; PRIOR FILING DATE: 2001-11-19
; PRIOR APPLICATION NUMBER: 60/338,692
; PRIOR FILING DATE: 2001-12-11

; PRIOR APPLICATION NUMBER: 10/171,468
; PRIOR FILING DATE: 2002-06-14
; PRIOR APPLICATION NUMBER: 10/225,066
; PRIOR FILING DATE: 2002-08-09
; PRIOR APPLICATION NUMBER: 10/225,067
; PRIOR FILING DATE: 2002-08-09
; PRIOR APPLICATION NUMBER: 10/225,068
; PRIOR FILING DATE: 2002-08-09
; NUMBER OF SEQ ID NOS: 2906
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 597
; LENGTH: 615
; TYPE: PRT
; ORGANISM: Oryza sativa
; FEATURE:
; OTHER INFORMATION: Orthologous to G278
US-10-374-780A-597

Query Match 98.5%; Score 2907.5; DB 15; Length 615;
Best Local Similarity 94.1%; Pred. No. 1.3e-258;
Matches 579; Conservative 0; Mismatches 3; Indels 33; Gaps 1;
Qy 1 MEPPTSHVTNAPSDFSASVEEGDADADVEALRRLSDNLAAAFRSPEDFAFLADARIA 60
Db 1 MEPPTSHVTNAPSDFSASVEEGDADADVEALRRLSDNLAAAFRSPEDFAFLADARIA 60
Qy 61 VPGGGGGGDLRHVCVLSARSPLRGVFAFAAAAAGGGGDSERLELRELLGGGEE 120
Db 61 VPGGGGGGDLRHVCVLSARSPLRGVFAFAAAAAGGGGDSERLELRELLGGGEE 120
Qy 121 VEVGYEARLRLVLDYLSRGVGLPKAACLCVDEDCAHVGCHPAPAFMAQVLFAASTFOVA 180
Db 121 VEVGYEARLRLVLDYLSRGVGLPKAACLCVDEDCAHVGCHPAPAFMAQVLFAASTFOVA 180
Qy 181 ELTNLFORRLDLVDLKVDEVDNLLILSVANLCKSKMLERCLDMVVRSLDMITLEKS 240
Db 181 ELTNLFORRLDLVDLKVDEVDNLLILSVANLCKSKMLERCLDMVVRSLDMITLEKS 240
Qy 241 LPPDVIKQIIDARLSGLISPENKGFNKHVRRIHRAALSDDDVLRMLLREGQTNLDDA 300
Db 241 LPPDVIKQIIDARLSGLISPENKGFNKHVRRIHRAALSDDDVLRMLLREGQTNLDDA 300
Qy 301 FALHYAVEHCDSKITTELLDLALADVNRHNPGRGYTVLHIAARRRREPKEIIVSLITKGARPA 360
Db 301 FALHYAVEHCDSKITTELLDLALADVNRHNPGRGYTVLHIAARRRREPKEIIVSLITKGARPA 360
Qy 361 DVTFDGRKAVQISKRLTKQGDYFGVTEGKPSKDRLCIEILQAEERDPOLGEASVSLA 420
Db 361 DVTFDGRKAVQISKRLTKQGDYFGVTEGKPSKDRLCIEILQAEERDPOLGEASVSLA 420
Qy 421 MAGESLRGRLLYLENR-----VALARIMPME 447
Db 421 MAGESLRGRLLYLENRGLNHLHYHNGFIMLVSELTVPFLGNKRKFLVDVVALARIMPME 480
Qy 448 ARVAMDTAQVDTGLEFNLGSGANPPPERQRTTVDLNESPFIMKEHRLARMTALSKTVELG 507
Db 481 ARVAMDTAQVDTGLEFNLGSGANPPPERQRTTVDLNESPFIMKEHRLARMTALSKTVELG 540
Qy 508 KRFFPRCSNVLDKIMDDTDPVSLGRDTSABKRKFHDLQVLOKAFHEDKEENDRSGLS 567
Db 541 KRFFPRCSNVLDKIMDDTDPVSLGRDTSABKRKFHDLQVLOKAFHEDKEENDRSGLS 600
Qy 568 SSSSSSTSGAIRPRR 582
Db 601 SSSSSSTSGAIRPRR 615

RESULT 3
US-10-437-963-153749
; Sequence 153749, Application US/10437963
; Publication No. US2004012343A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa, Thomas J.

; APPLICANT: Kovalic, David K.
; APPLICANT: Zhou, Yihua
; APPLICANT: Cao, Yongwei
; APPLICANT: Wu, Wei
; APPLICANT: Boukharov, Andrey A.
; APPLICANT: Barbazuk, Brad
; APPLICANT: Li, Ping
; TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated with
; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; FILE REFERENCE: 38-21(53221)B
; CURRENT APPLICATION NUMBER: US/10/437,963
; PRIOR FILING DATE: 2003-05-14
; NUMBER OF SEQ ID NOS: 204966
; SEQ ID NO 153749
; LENGTH: 615
; TYPE: PRT
; ORGANISM: Oryza sativa
; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT4530_53675C.1.pap
US-10-437-963-153749

Query Match 98.5%; Score 2907.5; DB 16; Length 615;
Best Local Similarity 94.1%; Pred. No. 1.3e-258;
Matches 579; Conservative 0; Mismatches 3; Indels 33; Gaps 1;
QY 1 MPPPTSHVTNAPSDDSASVEGDDADADVETALRRLSDNLAAAFSPSPEDFAFLADARIA 60
DB 1 MPPPTSHVTNAPSDDSASVEGDDADADVETALRRLSDNLAAAFSPSPEDFAFLADARIA 60
QY 61 VPGGGGGGDLRVHRCVLSARSPPFLRGVFPARRAAAAAGGGGDSERLELRELLGGGEE 120
DB 61 VPGGGGGGDLRVHRCVLSARSPPFLRGVFPARRAAAAAGGGGDSERLELRELLGGGEE 120
QY 121 VEVGYEALRLVDLYLSRGVGLPKAACLCVDEDCAHVCHPAPAFMAQVFAASTFOVA 180
DB 121 VEVGYEALRLVDLYLSRGVGLPKAACLCVDEDCAHVCHPAPAFMAQVFAASTFOVA 180
QY 181 ELTNLFORLLDVLKVEVDNLLILSVANLCNCKMCLERCLDMVRSNLDMTLEKS 240
DB 181 ELTNLFORLLDVLKVEVDNLLILSVANLCNCKMCLERCLDMVRSNLDMTLEKS 240
QY 241 LPDVIKQIIDARLSGLISPENKGFPHKVRRIHRAALSDVVELVRLMTEGQTNLDDA 300
DB 241 LPDVIKQIIDARLSGLISPENKGFPHKVRRIHRAALSDVVELVRLMTEGQTNLDDA 300
QY 301 FALHYAVEHCDSKITTELLDLALADVNRNPRGYTVLHIAARRRBPKEIIVSLTKGARPA 360
DB 301 FALHYAVEHCDSKITTELLDLALADVNRNPRGYTVLHIAARRRBPKEIIVSLTKGARPA 360
QY 361 DVTFGKRAVQISKRLTKQDYFGVTEGKPSKORLCIEILEQAERRDPQLGEASVSLA 420
DB 361 DVTFGKRAVQISKRLTKQDYFGVTEGKPSKORLCIEILEQAERRDPQLGEASVSLA 420
QY 421 MAGESLRGLLYLENR-----VALARIMFPM 447
DB 421 MAGESLRGLLYLENRNLIHYNGFIMLVSLVLETVFGNGKRFKYLDVVALARIMFPM 480
QY 448 ARVAMIDIAQVGTLEFNLSGANPPERTTVLDNESPFIKKEEHLARMTALSKTVELG 507
DB 481 ARVAMIDIAQVGTLEFNLSGANPPERTTVLDNESPFIKKEEHLARMTALSKTVELG 540
QY 508 KRFFPRCSNVLDKIMDETPVSLGRDTSAEKRFPHDLQDVLQKAFHEDKEENDRSGLS 567
DB 541 KRFFPRCSNVLDKIMDETPVSLGRDTSAEKRFPHDLQDVLQKAFHEDKEENDRSGLS 600
QY 568 SSSSTSICAIRPRR 582
DB 601 SSSSTSICAIRPRR 615

RESULT 4
US-10-328-675A-4
; Sequence 4, Application US/10328675A

; Publication No. US20030159171A1
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weiss, Laura
; APPLICANT: Willits, Michael
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: 30857USNPDIV1
; CURRENT APPLICATION NUMBER: US/10/328,675A
; CURRENT FILING DATE: 2002-12-23
; PRIOR FILING DATE: 2000-03-06
; PRIOR FILING DATE: 2000-03-06
; PRIOR FILING DATE: 1999-03-09
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: Patent In Ver. 2.1
; SEQ ID NO 4
; LENGTH: 576
; TYPE: PRT
; ORGANISM: Lycopersicon esculentum
US-10-328-675A-4

Query Match 58.8%; Score 1737; DB 14; Length 576;
Best Local Similarity 59.9%; Pred. No. 8.4e-151;
Matches 349; Conservative 94; Mismatches 108; Indels 32; Gaps 8;
QY 11 AFSDSAS-----VEGDADADADVEALRRLSDNLAAAF-RSPDPAPFLADARIAVP 62
DB 6 AFSDSNDISGSSSICCWNSESTSL-ADVNSLKRLESTLESIFDASAPDFDFADAKLLAP 64
QY 63 GGGGGGGDLRVHRCVLSARSPPFLRGVFPARRAAAAAGGGGDSERLELRELLGGGEE 122
DB 65 ----GGKEIPVHRCVLSARSPPFKNVFC-----GKDSSTKLELKELM----KEYE 106
QY 123 VGYEALRLVDLYLSRGVGLPKAACLCVDEDCAHVCHPAPAFMAQVFAASTFOVAEL 182
DB 107 VSPDAVSVLAYLSYKVRPASKDVCCVDCNECLHVACRPAPAFMAQVFAASTFOVSQL 166
QY 183 TNLFORLLDVLKVEVDNLLILSVANLCNCKMCLERCLDMVRSNLDMTLEKSLP 242
DB 167 VDKFQRLLDVLKAVADDVNMVLSVANICGKACERLLSRCIDIIVKSNVDIITLTKSLP 226
QY 243 PDVTKQIIDARLSGLISPENKGFPHKVRRIHRAALSDVVELVRLMTEGQTNLDDAFA 302
DB 227 HDIVKQITDSRAELGQGPESNGFPDKHVKRIHRAALSDVVELVRLMTEGQTNLDDAFA 286
QY 303 LHYAVEHCDSKITTELLDLALADVNRNPRGYTVLHIAARRRBPKEIIVSLTKGARPA 362
DB 287 LHYAVAYCDAKTAEELDLADLVNHNQNPGRGTVLHVAAARKEPKIIVSLTKGARPSDL 346
QY 363 TFDGRKAVQISKRLTKQDYFGVTEGKPSKORLCIEILEQAERRDPQLGEASVSLA 422
DB 347 TSDGKALQIAKRLTRLVDFTKSTEGKSAKORLCIEILEQAERRDPQLGEASVSLA 406
QY 423 GESLRGLLYLENRVALARIMFPMARVAMIDIAQVGTLEFNLSGANPPERTTVDL 482
DB 407 GDDLRGLLYLENRVGLAKLLFPMEAKVAMIDIAQVGTSELPLASMRKKIADARTVVDL 466
QY 483 NESPFIMKEEHLARMTALSKTVELGKRFPPRCNSVLDKIM--DDETDPVSLGRDTSAB-- 538
DB 467 NEAPFKMKEEHLNRLALSRVTEGKRFPPRCSEVLNKNIMDADDLSEIAYNGNDTVERQ 526
QY 539 -KRKRFHDLQDVLQKAFHEDKEENDRSGLSSSSSTSICAIRP 580
DB 527 LKQRYMBELQISKAFTEKKEPAKTNMSSSCSSCSSTSGKVDKP 569

RESULT 5
US-08-908-884-14
; Sequence 14, Application US/0890884
; Publication No. US20020138872A1
; GENERAL INFORMATION:
; APPLICANT: Dong et al.
; TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF

Db 244 VRSDIDVTIDKSLQNVVKQIIDTRKELFTPEGRVFPDKHVKRIHRALESDDVELVR 303
Qy 288 MLITGQTNLDLAFALHVAHECDKSKITTELLDLALADVNHRNPRGYTVLHIAARRPEK 347
Db 304 MLKERHTTLDAYALHVAHVAHCDAKTTTELLGLADVNLRNGHTVLHVAAMRKEPK 363
Qy 348 IIVSLITKARPADVTFGKRAVOISKRITKQDYGVTGEGKPSKDRLCIEILEQAR 407
Db 364 IIVSLITKGAHSDITSDOKKALQAKRLTKAVDFYKTEGQKDPKDRLCIEILEQAR 423
Qy 408 RDPQGEASVSLAMAGESIRGLLYENRVALARIMFPPEARVAMDIQVDTGLEFNLS 467
Db 424 REPLGEGSVSLAKAGDDLKMLLYENRVALARLLFPMEAKVAMDIQVDTGSEFTLSK 483
Qy 468 GANPPPERQRTTVDNESPFFIMKEHRLAMTALSVELKGRFFPRCSNVLDKIND--DE 525
Db 484 NI--ADARRNAVDLNEAPFILKEEHLQRMKALSVELKGRFFPRCSNVLDKINDAEDL 540
Qy 526 TDPVSIGRDTSAE--KKRPHFDLQDLQKAPHEKENDRSGLSSSSSTSGAIRP 580
Db 541 SQLAFLGKDTPEORQRKRKYLELOALTKAFTEDKEFDRSTLSSSSSTPMG--RP 596
RESULT 9
US-10-425-114-68962
; Sequence 68962, Application US/10425114
; Publication No. US2004003488A1
; GENERAL INFORMATION:
; APPLICANT: Liu, Jingdong
; APPLICANT: Zhou, Yihua
; APPLICANT: Kovalic, David K.
; APPLICANT: Screen, Steven E
; APPLICANT: Tabaska, Jack E
; APPLICANT: Cao, Yongwei
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated with
; FILE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; FILE REFERENCE: 38-21(5313)B
; CURRENT APPLICATION NUMBER: US/10/425,114
; CURRENT FILING DATE: 2003-04-28
; NUMBER OF SEQ ID NOS: 73128
; SEQ ID NO 68962
; LENGTH: 335
; TYPE: PRT
; ORGANISM: Zea mays
; FEATURE:
; OTHER INFORMATION: Clone ID: UC-ZMFLB73300C06_FLI.pap
US-10-425-114-68962
Query Match 48.3%; Score 1425.5; DB 12; Length 335;
Best Local Similarity 83.9%; Pred. No. 1.9e-122;
Matches 282; Conservative 24; Mismatches 25; Indels 5; Gaps 2;
Qy 251 DARLSGLISPKNGFPHKVRIRHIALDSDDELVRMLLTGQTNLDLAFALHVAHEHC 310
Db 1 DARVSLGLVSPEDKGFPHIRHIALDSDDELVRMLLKGGKTNLDLAFALHVAHEHC 60
Qy 311 DSKITTELLDALADVNHRNPRGYTVLHIAARRPEKIIIVSLITKARPADVTFGKRAV 370
Db 61 DSKITTELLDALADVNHRNPRGYTVLHIAARRPEKIIIVSLITKARPADVTFGKRAV 120
Qy 371 QISKRITKQDYGVTGEGKPSKDRLCIEILEQARRRDPOLGEASVSLAMAGESIRGL 430
Db 121 QISKRITKQDYGVTGEGKPSKDRLCIEILEQARRRDPOLGEASVSLAMAGESIRGL 180
Qy 431 LYLENRVALARIMFPPEARVAMDIQVDTGLEFNLSGANPPPERQRTTVDNESPFFIMK 490
Db 181 LYLENRVALARILFPPEARVAMDIQVDTGLEFNLSVSNLPAEIQR--TVDLNDTFTWK 239
Qy 491 EEHLARMALSKVELKGRFFPRCSNVLDKINDDETDPSVSLGRDTSAAKKRPHDLQDVL 550
Db 240 EEHLARMALSKVELKGRFFPRCSNVLDKINDDETDPSVSLGRDTSAAKKRPHDLQDVL 299

Qy 551 QKAFHEDKENDRSGL-----SSSSSTSGAIRPRR 582
Db 300 QKAFSEDKENDRSAARSPSSSSSTTTTSGAVRPRR 335
RESULT 10
US-08-908-884-3
; Sequence 3, Application US/0890884
; Publication No. US2002013887A1
; GENERAL INFORMATION:
; APPLICANT: Dong et al.
; TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
; NUMBER OF SEQUENCES: 28
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Clark & Elbing LLP
; STREET: 176 Federal Street
; CITY: Boston
; STATE: MA
; COUNTRY: USA
; ZIP: 02110
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/908,884
; FILING DATE:
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 60/023,851
; FILING DATE: August 9, 1996
; APPLICATION NUMBER: 60/035,166
; FILING DATE: January 10, 1997
; APPLICATION NUMBER: 60/046,769
; FILING DATE: May 16, 1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Elbing, Karen L
; REGISTRATION NUMBER: 35,238
; REFERENCE/DOCKET NUMBER: 00786/339004
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 617-428-0200
; TELEFAX: 617-428-7045
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 593 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-908-884-3
Query Match 43.2%; Score 1276; DB 8; Length 593;
Best Local Similarity 47.2%; Pred. No. 2.6e-108;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;
Qy 5 TSHVTNAPSDSDSASVEGDADADYEALRRLSDNLAAAFSPEDPAFLADARLAVPGG 64
Db 17 TSFVATDNTDSSIIVYLAABQVLTPGDSVALQULNSFESVDFSPDD--FYSDAKLVL--- 71
Qy 65 GGGGGDLRVHRCVLARSPPFLRGVFAARRAAAAGGGGDSERLELRELLGGGGEVEVG 124
Db 72 -SDGREVSFHCVLARSPPFLRGVFAARRAAAAGGGGDSERLELRELLGGGGEVEVG 124
Qy 125 YEALRLVDLYSGRVGDLPKAACLCVDEDCAHVGHCHPAVMAQVLPAASTFOVAELTN 184
Db 125 FDSVVTVLAVYSSRVPRPPKGVSECADENCHVACRAVDFMFLVLAIFIKPELIT 184
Qy 185 LFQRELLDVLKVEVDNLLILSVANLCNKSCKMLERCLDWVVRNSLDMITLKSLLPD 244
Db 185 LYQRELLDVLKVEVDNLLILSVANLCNKSCKMLERCLDWVVRNSLDMITLKSLLPD 244
Qy 245 VIKIIDARLSGLISPKNGFPHKVRIRHIALDSDDELVRMLLTGQTNLDLAFALH 304

```
Db 245 LVKEIIDRRKELGSEVPKVK-----KXVSNVHKALSDSDIELVKLKKEDHNTLDDACALH 300
Qy 305 YAVEHCDSKITTELDLADLVNHRNPRGYTVLHIAARRRPEKTIIVSLTTKGARPADVTF 364
Db 301 FAVAYCNVKTATDLKLDLVNHRNPRGYTVLHVAAMRKEPQLILSLLEKASASEATL 360
Qy 365 DGRKAVQISKRLTKQDYGFGVTEEGKPSKORLCIEILEQARRRPPQIGEASVSLAMAGE 424
Db 361 EGR TALMAKQATWAVECNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPPSFAVAAD 420
Qy 425 SLRGRLLYLENRVALARIMFMEARVAMDIQVDTLGFNLGSGANPPPER-----QRTTV 480
Db 421 ELKMTLLLENRVALAQRLLPTEAQAAMEIAEMKGTCEFI VTS---LEPDRLTGTRKTSR 477
Qy 481 DLNESPFIMKEEHLARMTALSKTVBLGRFPFPCRSNVLDKIMD-DETDVPSLGRDTSAEK 539
Db 478 GVKIAPFRILEEHOSRLKALS KTVBLGRFPFPCRSNVLDQIMNCEDLTQLACGEDDTAEK 537
Qy 540 R-----KRFDLQDVLOKAFHEDKEENDRSGLSSSSSSTS 574
Db 538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSSLTDSSTS 576
```

RESULT 11

```
US-09-908-323-3
; Sequence 3, Application US/09908323
; Patent No. US20020073447A1
; GENERAL INFORMATION:
; APPLICANT: Dong et al.
; TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
; NUMBER OF SEQUENCES: 28
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Clark & Elbing LLP
; STREET: 176 Federal Street
; CITY: Boston
; STATE: MA
; COUNTRY: USA
; ZIP: 02110
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FASTSEQ for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/908,323
; FILING DATE: 17-Jul-2001
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/908,884
; FILING DATE: <Unknown>
; APPLICATION NUMBER: 60/035,166
; FILING DATE: January 10, 1997
; APPLICATION NUMBER: 60/046,769
; FILING DATE: May 16, 1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Elbing, Karen L.
; REGISTRATION NUMBER: 35,238
; REFERENCE/DOCKET NUMBER: 00786/339004
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 617-428-0200
; TELEFAX: 617-428-7045
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 593 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-908-323-3
```

Query Match

43.2%; Score 1276; DB 9; Length 593;

```
Best Local Similarity 47.2%; Pred. No. 2.6e-108;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;
Qy 5 TSHVTNAPSDDSSASVEEGDADADYEAALRRSLNLAARSPEDFAFLADARIAVPGG 64
Db 17 TSPVATDNTDSSIVYLAAEQVLTGPDVVSALQLLSNSPESVFDSPD--FYSDAKLVL--- 71
Qy 65 GGGGGDVRHRCVLSARSFPLRGVFPARRAAAAAGGGGDSERLEBELLLGGGEEVEVG 124
Db 72 -SDGREVLSFHRVLSARSFPLRGVFPARRAAAAAGGGGDSERLEBELLLGGGEEVEVG 124
Qy 125 YEALRLDLYLSGRVGDLPKAAACLCVDEDCAHVGHCHPAVAFMAQVLPAAASTFOVAELTN 184
Db 125 FDSVTVTVAVYSRVRPPPKGVSECADENCHVACHVAPVDFMLVLYLAFIFKIPELIT 184
Qy 185 LFQRLLDLVLDKVEDNLLILSVANLCNKSCKMLERCLDMVVRSLNMDITLTKSLPDP 244
Db 185 LYQRHLDDVVDKVVIEDTLVLKLANICGKACMKLLDRCKEIIVKSNDVNVSLKSLPEE 244
Qy 245 VIKOIIDARLSLGLISPENKGFNPKVRRHRAALDSDDELVRMLLTGEGQNLDDAPALH 304
Db 245 LVKEIIDRRKELGSEVPKVK-----KXVSNVHKALSDSDIELVKLKKEDHNTLDDACALH 300
Qy 305 YAVEHCDSKITTELDLADLVNHRNPRGYTVLHIAARRRPEKTIIVSLTTKGARPADVTF 364
Db 301 FAVAYCNVKTATDLKLDLVNHRNPRGYTVLHVAAMRKEPQLILSLLEKASASEATL 360
Qy 365 DGRKAVQISKRLTKQDYGFGVTEEGKPSKORLCIEILEQARRRPPQIGEASVSLAMAGE 424
Db 361 EGR TALMAKQATWAVECNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPPSFAVAAD 420
Qy 425 SLRGRLLYLENRVALARIMFMEARVAMDIQVDTLGFNLGSGANPPPER-----QRTTV 480
Db 421 ELKMTLLLENRVALAQRLLPTEAQAAMEIAEMKGTCEFI VTS---LEPDRLTGTRKTSR 477
Qy 481 DLNESPFIMKEEHLARMTALSKTVBLGRFPFPCRSNVLDKIMD-DETDVPSLGRDTSAEK 539
Db 478 GVKIAPFRILEEHOSRLKALS KTVBLGRFPFPCRSNVLDQIMNCEDLTQLACGEDDTAEK 537
Qy 540 R-----KRFDLQDVLOKAFHEDKEENDRSGLSSSSSSTS 574
Db 538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSSLTDSSTS 576

RESULT 12
US-09-934-455-74
; Sequence 74, Application US/09934455
; Publication No. US20030121070A1
; GENERAL INFORMATION:
; APPLICANT: Adam, Luc
; APPLICANT: Creelman, Robert
; APPLICANT: Dubell, Arnold
; APPLICANT: Heard, Jacqueline
; APPLICANT: Jiang, Cai-Zhong
; APPLICANT: Keddie, James
; APPLICANT: Pilgrim, Marsha
; APPLICANT: Ratcliffe, Oliver
; APPLICANT: Reuber, Lynne
; APPLICANT: Riechmann, Jose Luis
; APPLICANT: Yu, Guo-Liang
; APPLICANT: Pineda, Omaira
; TITLE OF INVENTION: Genes for Modifying Plant Traits IV
; FILE REFERENCE: MBI-0025
; CURRENT APPLICATION NUMBER: US/09/934,455
; PRIOR FILING DATE: 2001-08-22
; PRIOR APPLICATION NUMBER: 60/227439
; PRIOR FILING DATE: 2000-08-22
; PRIOR APPLICATION NUMBER: MBI-0022
; PRIOR FILING DATE: 2001-11-16
; PRIOR APPLICATION NUMBER: MBI-0023
; PRIOR FILING DATE: 2001-04-17
; NUMBER OF SEQ ID NOS: 516
; SOFTWARE: PatentIn version 3.1
```

; SEQ ID NO 74
; LENGTH: 593
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-09-934-455-74

Query Match 43.2%; Score 1276; DB 10; Length 593;
Best Local Similarity 47.2%; Pred. No. 2.6e-108;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNFAFSDSDSVEEGDADADVEALRRLLDNLAARSPDEPFAFLADARIAVPGG 64
Db 17 TSPVATDNTDSSIVYLAEEQVLTGPDVSALQLLSNFSFVDSPPD--FYSDAKLVL--- 71

QY 65 GGGGDLRVHRCVLSARSFPLRGVFARRAAAAAGGGGDSERLELRELLGGGEEVEYG 124
Db 72 -SDGREVSFHRVLSARSFPLRGVFARRAAAAAGGGGDSERLELRELLGGGEEVEYG 124

QY 125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGHCHPAVAFMAQVLFPAASTFOVAELTN 184
Db 125 FDSVTVTLAYVYSSRVPRPKGVSECADENCCHVACRPVDFMFLVLYLAFIKIPELIT 184

QY 185 LFQRLLDVLDKVEVDNLLILSVANLCNCKMLERCLDMVRSNLDMLTLEKSLPD 244
Db 185 LYQRHLDDVVDKVIETDVLILKLANICGKACMKLDRCKEIIIVKSNVDMVLSLEKSLPEE 244

QY 245 VIKQIIDARLSGLISPENKGFPHKVRRIHRAALSDDDVELVRLMLTTEGQTNLDDAFALH 304
Db 245 LVKEIIDRRKELGLEVPKVK---KHVSNVHKALSDDDIELVKLLKEDHTNLDACALH 300

QY 305 YAVEHCDSKITTELLDLALADVNRHPRGYTVLHIAARRRPKIIVSLITKGARPAVTF 364
Db 301 FAVAYCNVKTATDLLKLDADVNRHPRGYTVLHVAARKEPQILSLLEKGSASEATL 360

QY 365 DGRKAVOISKRLTKQDYGVTGTEGKPSKDRLCIIFLQARERDPQLGEASVSLAMAGE 424
Db 361 EGRALMIKATQATWAVECNIPEQCKHSLKGLCVLEIQEDKREQIPRDVPPSFAVAAD 420

QY 425 SLRGLLYLENRVALARIMFPMPEARVAMDAQVDGTFLENLGSGANPPPER---QRTTV 480
Db 421 ELKMTLLDLENRVALAQRLLPTEAQAAMEIAEMKGTCEFIPTS---LEPDRLTGKRTSP 477

QY 481 DLNESPFIMKEEHLARMTALSKTVELGKRPFRCSNVLDKIMD-DETDVPSLGRDTSAEK 539
Db 478 GVKIAPFRILEEHQSRKLSKTVELGKRPFRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

QY 540 R----KRFHDLQDLQKAFHEDKEENDRGSLSSSSSTS 574
Db 538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSLTDSSTS 576

RESULT 13
US-09-848-841-17
; Sequence 17, Application US/09848841
; Publication No. US20030172411A1
; GENERAL INFORMATION:
; APPLICANT: E. I. du Pont de Nemours and Company
; APPLICANT: Butler, Karla
; APPLICANT: Falco, Carl
; APPLICANT: Famodu, Olayo O.
; APPLICANT: Fang, Yiwen
; APPLICANT: Han, Feng
; APPLICANT: Heppard, Elmer
; APPLICANT: Liu, Zhan-Bin
; APPLICANT: Miao, Gou-Hau
; APPLICANT: Odell, Joan
; APPLICANT: Rafalski, Antoni
; TITLE OF INVENTION: Disease Resistance Factors
; FILE REFERENCE: BB1252 US NA1
; CURRENT APPLICATION NUMBER: US/09/848,841
; CURRENT FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: 60/107,242
; PRIOR FILING DATE: 1998-11-05

; PRIOR APPLICATION NUMBER: US99/25,953
; PRIOR FILING DATE: 1999-10-04
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 17
; LENGTH: 593
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-09-848-841-17

Query Match 43.2%; Score 1276; DB 10; Length 593;
Best Local Similarity 47.2%; Pred. No. 2.6e-108;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNFAFSDSDSVEEGDADADVEALRRLLDNLAARSPDEPFAFLADARIAVPGG 64
Db 17 TSPVATDNTDSSIVYLAEEQVLTGPDVSALQLLSNFSFVDSPPD--FYSDAKLVL--- 71

QY 65 GGGGDLRVHRCVLSARSFPLRGVFARRAAAAAGGGGDSERLELRELLGGGEEVEYG 124
Db 72 -SDGREVSFHRVLSARSFPLRGVFARRAAAAAGGGGDSERLELRELLGGGEEVEYG 124

QY 125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGHCHPAVAFMAQVLFPAASTFOVAELTN 184
Db 125 FDSVTVTLAYVYSSRVPRPKGVSECADENCCHVACRPVDFMFLVLYLAFIKIPELIT 184

QY 185 LFQRLLDVLDKVEVDNLLILSVANLCNCKMLERCLDMVRSNLDMLTLEKSLPD 244
Db 185 LYQRHLDDVVDKVIETDVLILKLANICGKACMKLDRCKEIIIVKSNVDMVLSLEKSLPEE 244

QY 245 VIKQIIDARLSGLISPENKGFPHKVRRIHRAALSDDDVELVRLMLTTEGQTNLDDAFALH 304
Db 245 LVKEIIDRRKELGLEVPKVK---KHVSNVHKALSDDDIELVKLLKEDHTNLDACALH 300

QY 305 YAVEHCDSKITTELLDLALADVNRHPRGYTVLHIAARRRPKIIVSLITKGARPAVTF 364
Db 301 FAVAYCNVKTATDLLKLDADVNRHPRGYTVLHVAARKEPQILSLLEKGSASEATL 360

QY 365 DGRKAVOISKRLTKQDYGVTGTEGKPSKDRLCIIFLQARERDPQLGEASVSLAMAGE 424
Db 361 EGRALMIKATQATWAVECNIPEQCKHSLKGLCVLEIQEDKREQIPRDVPPSFAVAAD 420

QY 425 SLRGLLYLENRVALARIMFPMPEARVAMDAQVDGTFLENLGSGANPPPER---QRTTV 480
Db 421 ELKMTLLDLENRVALAQRLLPTEAQAAMEIAEMKGTCEFIPTS---LEPDRLTGKRTSP 477

QY 481 DLNESPFIMKEEHLARMTALSKTVELGKRPFRCSNVLDKIMD-DETDVPSLGRDTSAEK 539
Db 478 GVKIAPFRILEEHQSRKLSKTVELGKRPFRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

QY 540 R----KRFHDLQDLQKAFHEDKEENDRGSLSSSSSTS 574
Db 538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSLTDSSTS 576

RESULT 14
US-10-225-066A-954
; Sequence 954, Application US/10225066A
; Publication No. US20030226173A1
; GENERAL INFORMATION:
; APPLICANT: Mendel Biotechnology, Inc.
; APPLICANT: Ratcliffe, Oliver
; APPLICANT: RIECHMANN, Jose Luis
; APPLICANT: ADAM, Luc J
; APPLICANT: DUBELL, Arnold T
; APPLICANT: HEARD, Jacqueline E
; APPLICANT: PILGRIM, Marsha L
; APPLICANT: JIANG, Cai-Zhong
; APPLICANT: REUBER, T. Lynne
; APPLICANT: CREELMAN, Robert A
; APPLICANT: PINEDA, Omaira
; APPLICANT: YU, Guo-Liang
; APPLICANT: BROWN, Pierre E


```
; TITLE OF INVENTION: Yield-Related Polynucleotides and Polypeptides in Plants
; FILE REFERENCE: MB10036-2 US
; CURRENT APPLICATION NUMBER: US/10/225,066A
; CURRENT FILING DATE: 2002-08-09
; PRIOR APPLICATION NUMBER: 09/837,444
; PRIOR FILING DATE: 2001-04-18
; PRIOR APPLICATION NUMBER: 60/310,847
; PRIOR FILING DATE: 2001-08-09
; PRIOR APPLICATION NUMBER: 60/336,049
; PRIOR FILING DATE: 2001-12-05
; PRIOR APPLICATION NUMBER: 60/338,692
; PRIOR FILING DATE: 2001-12-11
; PRIOR APPLICATION NUMBER: 10/171,468
; PRIOR FILING DATE: 2002-06-14
; NUMBER OF SEQ ID NOS: 1122
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 954
; LENGTH: 593
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
; US-10-225-066A-954

Query Match          43.2%; Score 1276; DB 12; Length 593;
Best Local Similarity 47.2%; Pred. No. 2.6e-108;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNAPSDSASVEGDADADVEALRRLSNLAAPRSPEDFAFLADARIAVPGG 64
Db 17 TSFVATNTDSSIVYLAEEQVLTPDVSALQLLSNFSFVSDPDD--FYSDAKLVL--- 71
QY 65 GGGGGDLRVHRCVLSARSFPLRGVFAARRAAAAGGGGDSERLERLRLLGGGEEVVG 124
Db 72 -SDGREVSFHRCLVSARSFPLKSALA--AAKKEKDSNNTAAVKLEKEI----AKDYEVG 124
QY 125 YEALRLVDLYSGRVGDLPKAACLCVDEDCAHVGHCHPAVAFMAQVLPFAASTFOVAELTN 184
Db 125 FDSVTVLAYVYSSRVPRPKGVSECADENCCHVACRPVDFPMLEVLVYLAFFIKIPELIT 184
QY 185 LFORLLDVLKVEVDNLLILSVANLCNKSCKMLRCLDMVVRNSLDMITLKSPPD 244
Db 185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNDVMSLEKSLPEE 244
QY 245 VIKQIIDARLSGLISPENKGFPPNKHVRIHRLDSDDDVELVRMLLTGEGTNLDDAFALH 304
Db 245 LVKEIIDRRKELGLEVPVKV----KHVSNVHKALDSDDIELVKLLKEDHTNLDACALH 300
QY 305 YAVEHCDSKITTELLDLALADVNRNPRGYTVLHIAARRRPEKIIIVSLTTKGARPADVTF 364
Db 301 FAVAYCNVKTATDLKLIDLADVNRNPRGYTVLVHVAARKPEQLILSLEKGSASEATL 360
QY 365 DGRKAVQISKRTKQDYGVTTEGKPSPKDRLCIEILQEARRRDPQLGEASVSLAMAGE 424
Db 361 EGR TALMIKATMAVECNIPQCKSHLKGRLCVELLEQEDKREQIPRDVPPSPFAVAAD 420
QY 425 SLRGELLYLENRVALRIMFPEARVAMDIAQVDTGLFENLGSGANPPPER----QRTTV 480
Db 421 ELKMTLLDLENRVALAQRLLFPTERAQAMEIAEMKGTCEFI VTS---LEPDRLTGKRTGSP 477
QY 481 DINESPFTMKEBHARMTALSKTVLKGKFPFRCNSVLDDKMD--DETDPVSLGRDTSAEK 539
Db 478 GVKIAPFRIEHBQSRKALSKTVELGKRFPRCSAVJDQINVCEDTLQLACGEDDTAEK 537
QY 540 R-----KRFHDLQDVLOKAFHEDKEENDRSGLSSSSSSTS 574
Db 538 LKQKQRYMEIQETLKKAFSEDNLELGNSSLTDSSTS 576
; RESULT 15
; US-10-079-035-3
; Sequence 3, Application US/10079035
; Publication No. US20020152499A1
; GENERAL INFORMATION:
; APPLICANT: Ryale, John
```

```
; APPLICANT: Delaney, Terry
; APPLICANT: Friedrich, Leslie
; APPLICANT: Weymann, Kristianna
; APPLICANT: Lawton, Kay
; APPLICANT: Ellis, Daniel
; APPLICANT: Ujnes, Scott
; APPLICANT: Jesse, Taco
; APPLICANT: Vos, Pieter
; TITLE OF INVENTION: GENE ENCODING A PROTEIN INVOLVED IN THE
; TITLE OF INVENTION: SIGNAL TRANSDUCTION CASCADE LEADING TO SYSTEMIC ACQUIRED RSSIS
; NUMBER OF SEQUENCES: 17
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: No. US20020152499A1artis Corporation
; STREET: 520 White Plains Road, P.O. Box 2005
; CITY: Tarrytown
; STATE: New York
; COUNTRY: USA
; ZIP: 10591
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA: US/10/079,035
; APPLICATION NUMBER: US/10/079,035
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/577,799
; FILING DATE:
; APPLICATION NUMBER: 08/880,179
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Meigs, J. Timothy
; REGISTRATION NUMBER: 38,241
; REFERENCE/DOCKET NUMBER: CGC 1909
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (919) 541-8587
; TELEFAX: (919) 541-8689
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 593 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-10-079-035-3

Query Match          43.2%; Score 1276; DB 13; Length 593;
Best Local Similarity 47.2%; Pred. No. 2.6e-108;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNAPSDSASVEGDADADVEALRRLSNLAAPRSPEDFAFLADARIAVPGG 64
Db 17 TSFVATNTDSSIVYLAEEQVLTPDVSALQLLSNFSFVSDPDD--FYSDAKLVL--- 71
QY 65 GGGGGDLRVHRCVLSARSFPLRGVFAARRAAAAGGGGDSERLERLRLLGGGEEVVG 124
Db 72 -SDGREVSFHRCLVSARSFPLKSALA--AAKKEKDSNNTAAVKLEKEI----AKDYEVG 124
QY 125 YEALRLVDLYSGRVGDLPKAACLCVDEDCAHVGHCHPAVAFMAQVLPFAASTFOVAELTN 184
Db 125 FDSVTVLAYVYSSRVPRPKGVSECADENCCHVACRPVDFPMLEVLVYLAFFIKIPELIT 184
QY 185 LFORLLDVLKVEVDNLLILSVANLCNKSCKMLRCLDMVVRNSLDMITLKSPPD 244
Db 185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNDVMSLEKSLPEE 244
QY 245 VIKQIIDARLSGLISPENKGFPPNKHVRIHRLDSDDDVELVRMLLTGEGTNLDDAFALH 304
Db 245 LVKEIIDRRKELGLEVPVKV----KHVSNVHKALDSDDIELVKLLKEDHTNLDACALH 300
QY 305 YAVEHCDSKITTELLDLALADVNRNPRGYTVLHIAARRRPEKIIIVSLTTKGARPADVTF 364
```

301	DB	FAVAYCNVKTATD	LLKLDLADVNHRNPGYTVLHVAAMRKEPQIIUSLLEKGRASASEATL	360
365	QY	DGRKAVQISKRLTKQGDYFGVTEEGKSPKDRLCIEILEQAERDDPOLGEASVSLAMAGE	424	
361	DB	EGRTRALMTAKOATMAVECNNTPEQCKHSLGRLCVEILEQEDRREQIPRDVPPPSFAVAAD	420	
425	QY	SURGRLLVLENRVALARIMPMPEARVARMDIAQVDGTLFENLGGANPPPER---	480	
421	DB	ELKMTLLDLLENVALAQRLFFTEAQAAMEIAEMKGTCEFTVTS--LEPDLRTGTGKRTSP	477	
481	QY	DLNESPFPMKEBLHMTALSKTYVELGKRPGRCSNVLDKIMD-DETDPSVLGRDTSFAEK	539	
478	DB	GVKIAPFRILEBHQHGRKALSKTYELGKRPGRCSAVDQIMCEDITQLACGEDDTAEK	537	
540	QY	R-----KRPHDLQDVLOKAPHEDKENDRSLGSSSSSTS	574	
538	DB	RLQCKQRYMEIGETLUKKAFFSNDLELGNSSITDTSSTS	576	

Search completed: September 14, 2004, 01:00:47
Job time : 135 secs

GenCore version 5.1.1.6
Copyright (c) 1993 - 2004 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: September 14, 2004, 00:38:24 ; Search time 34 Seconds
(without alignments)
883.715 Million cell updates/sec

Title: US-09-294-539-4
Perfect score: 2952
Sequence: 1 MEPTSHVTNAFSDSDSASV.....RSLSSSSSTSGAIRPRR 582

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents AA:*
1: /cgn2_6/ptodata/2/iaa/5A-COMB.pep:*
2: /cgn2_6/ptodata/2/iaa/5B-COMB.pep:*
3: /cgn2_6/ptodata/2/iaa/6A-COMB.pep:*
4: /cgn2_6/ptodata/2/iaa/6B-COMB.pep:*
5: /cgn2_6/ptodata/2/iaa/PCITUS-COMB.pep:*
6: /cgn2_6/ptodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1737	58.8	576	4	US-09-519-232-4
2	1672.5	56.7	588	4	US-09-519-232-2
3	1629	55.2	604	4	US-09-519-232-64
4	1276	43.2	593	2	US-08-989-478-2
5	1276	43.2	593	3	US-08-996-685-2
6	1276	43.2	593	3	US-08-880-178-3
7	1270	43.0	593	2	US-08-989-478-8
8	1270	43.0	593	3	US-08-996-685-8
9	1222.5	41.4	579	4	US-09-519-232-6
10	1213.5	41.1	600	4	US-09-519-232-20
11	1213.5	41.1	601	4	US-09-519-232-72
12	1188.5	40.3	521	2	US-08-989-478-12
13	1188.5	40.3	521	3	US-08-996-685-12
14	1134	38.4	469	2	US-08-989-478-10
15	1134	38.4	469	3	US-08-996-685-10
16	1087	36.8	621	4	US-09-551-778-2
17	1087	36.8	621	4	US-09-551-778-4
18	1060.5	35.9	591	4	US-09-519-232-66
19	1052.5	35.7	397	2	US-08-989-478-14
20	1052.5	35.7	397	3	US-08-996-685-14
21	1045.5	35.4	609	4	US-09-569-804-11
22	1045	35.4	609	4	US-09-569-804-10
23	1031	34.9	586	4	US-09-519-232-8
24	1009	34.2	574	4	US-09-519-232-70
25	995	33.7	475	4	US-09-569-804-4
26	971.5	32.9	601	4	US-09-519-232-18
27	844.5	28.6	409	4	US-09-569-804-21

28	825	27.9	217	4	US-09-519-232-46
29	823	27.9	219	4	US-09-519-232-30
30	782.5	26.5	381	4	US-09-569-804-17
31	751	25.4	261	2	US-08-989-478-16
32	751	25.4	261	3	US-08-996-685-16
33	678	23.0	369	4	US-09-519-232-74
34	644	21.8	165	4	US-09-519-232-38
35	614	20.8	165	4	US-09-519-232-40
36	599	20.3	165	4	US-09-519-232-42
37	502.5	17.0	180	4	US-09-569-804-35
38	485	16.7	165	4	US-09-519-232-58
39	485	16.4	165	4	US-09-519-232-32
40	477	16.2	165	4	US-09-519-232-34
41	470	15.9	165	4	US-09-519-232-48
42	461.5	15.6	158	4	US-09-519-232-50
43	450	15.2	165	4	US-09-519-232-44
44	441	14.9	165	4	US-09-519-232-56
45	425.5	14.4	166	4	US-09-519-232-54

ALIGNMENTS

RESULT 1
US-09-519-232-4
; Sequence 4, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weiolo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Testaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: Patent in Ver. 2.1
; SEQ ID NO 4
; LENGTH: 576
; TYPE: PRT
; ORGANISM: Lycopersicon esculentum
US-09-519-232-4

Query Match	58.8%;	Score	1737;	DB	4;	Length	576;
Best Local Similarity	59.9%;	Pred. No.	9.5e+169;				
Matches	349;	Conservative	94;	Mismatches	108;	Indels	32;
		Gaps					8;
Qy	11	AFSDSDSAS	-----VEEGDADADADVEALRRLLNDLAAAP-RSPEDAFADARIAPV	62			
Db	6	AFSDNDISGSSSICCMNESL-ADVNSUKRLSETLESIPDASAPDFFADAKLLAP	64				
Qy	63	GGGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGGEDGSGERLEURELLGGGEEVE	122				
Db	65	-----GGKEIPVHRCILSARSPFFKNVFC-----GKDSSTYKLEIKELM-----KEYE	106				
Qy	123	VGYEARLRLVLYSGRVGDLPKAACLCVDECAHVGHCPAVAFMAQVLFPAASTFQVAEL	182				
Db	107	VSFDAVSVLAYLYSGKVRPASKDVCVCDNECLHVACRPVAFPMQVLYASFQISQL	166				
Qy	193	TNLFORLLDVLDKVEVDNLLILSVANLCHKSCMKLLERCLDMVVRNLDMLTLEKSLP	242				
Db	167	VDFQRLHLLDLDKAVADDDVMVLNVANICGACERLLSRCIDIIIVKSNVDIITLDKSLP	226				
Qy	243	PDVTKQIIDARLSGLISPENKGFPHVRIHRAALDSDVVELVRLMLTEGOTNLDADA	302				
Db	227	HDIQVQITDSRAELQLOQFESNGFPDKVKRIHRAALDSDVVELLRLMLKEGHTTLDADA	286				
Qy	303	LHYAVEHCDSKITTELLDALADVNHNRNPRGYTVLHTAARRREPPIIYVSLITKGARPAV	362				
Db	287	LHYAVAYCDAKTAEALLDLSADVNHQNRPGHTVLHVAAMRKEPKIIYVSLITKGARPSDL	346				
Qy	363	TFDGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCTBILEQAERRDPQLGEASVSLANA	422				

Db 347 TSDGKALQIAKRLRLVDFTKSTEKSAKPDRLCIBELQAEERDPLLGEASLSLAWA 406
QY 423 GSSLGRLLYLNVRVALARIMFPMPEARVAMDAQVDTGLEFNLGSGANPPPERQRTTYDL 482
Db 407 GDDLRLKLLYLNVRVGLAKLLFPMEAKVAMDAQVDTGSELPLASMRKKIADAQRTTYDL 466
QY 483 NESPFIMKEEHLARMTALSKTVELGKRPFRCSNVLDKIM--DDTDPVSLGRDTSAE-- 538
Db 467 NEAPPFMKEEHLNRRLALSRVTELGRFPFRCSNVLDKIMADDDLSEIAYMGNDIVBERQ 526
QY 539 -KRRKPHDLQDVLOKAFHEKEDNDRSGLSSSSSSSSTSGAIRP 580
Db 527 LKKQRYMELQELSKAFTEDEKFAKTNMSSSCSSTSGKGVDP 569
RESULT 2
US-09-519-232-2
; Sequence 2, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
; LENGTH: 588
; TYPE: PRT
; ORGANISM: Nicotiana tabacum
US-09-519-232-2

Query Match 56.7%; Score 1672.5; DB 4; Length 588;
Best Local Similarity 56.8%; Pred. No. 3,9e-162;
Matches 336; Conservative 102; Mismatches 119; Indels 35; Gaps 8;
QY 11 AFSDDSDASVEE-----GDADADADVEALRLRLSNLAAAF-RSPEDFAFLAD 56
Db 7 AFSDDNDISGSSSICIGGGMTEFFSPETSPAETISLKRSLSETLSIFDASLPEDFYAD 66
QY 57 ARTAVPGGGGGDLRVHRCVLSARSPPFLRGVFAARRAAAAGGGEDGSRLELRELLGG 116
Db 67 AKLVV---SGPCKEIPVHRCILSARSPPFNLF-----GKKEKNSKVELKEVM-- 113
QY 117 GGEVEVGYEALRLVLDYLSGRVGLPKAACLCVDEDCAHVGHCPAVAFMAQVLFPAAST 176
Db 114 --KEHEVSYDAVMSLAYLSGKVRPSKDCVCDVNDCHVACRPVAFVLEVLYTSPT 171
QY 177 FQVAELTNLFQRLDLVDLVKVEVDNLLLSVANLCNCKSKMLERCLDMVRSLDMIT 236
Db 172 FQISELVDFQRLHLLDILDKTAADVMVVLVANIICGKACERILLSSCIBIIVKSNVDIIT 231
QY 237 LEKSLPPDVIKQIIDARLSGLISPENKGFPMKHVRIHRLSDSDVLRMLLTGQTN 296
Db 232 LDKALPHDVIVKQITDSRAELGLQGPESNGFPDKVRIHRLSDSDVLRMLLTGHT 291
QY 297 LDDAFALHYAVEHCDISKITTELDLALADVNHRNPRGYTVLHIAARRRPEKIIIVSLITKG 356
Db 292 LDDAYALHYAVAYCDAKTTAEILDLALADINHONSRGYTVLHVAAMRKEPKIIVWSLITKG 351
QY 357 ARPADTVFGRKAVQISKRITKQDYGVTTEGKPSKDRCLCIEILEQAEERDPOLGEAS 416
Db 352 ARPSDLTSDGRKALQIAKRLTRIVDFSKPEEGKSASNDRLCIEILEQAEERDPLLGEAS 411
QY 417 VSLAMAGESLRGLLYENRVALARIMFPMPEARVAMDAQVDTGLEFNLGSGANPPPERQ 476
Db 412 VSLAMAGDDLRLKLLYLNVRVGLAKLLFPMEAKVAMDAQVDTGSEFFPLASIGKKNAAQ 471

QY 477 RTTVDLNESPFIMKEEHLARMTALSKTVELGKRPFRCSNVLDKIM--DDTDPVSLGRD 534
Db 472 RTTVDLNEAPPFKIEEHLNRRLALSRVTELGRFPFRCSNVLDKIMADDDLSEIAYMGND 531
QY 535 TSAE---KRRKPHDLQDVLOKAFHEKEDNDR-SGLSSSSSSSTSGAIRP 582
Db 532 TAERQLKQRYMELQELSKAFTEDEKFAKTNMSSSCSSTSGKGVDPKPK 583
RESULT 3
US-09-519-232-64
; Sequence 64, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 64
; LENGTH: 604
; TYPE: PRT
; ORGANISM: Beta vulgaris
US-09-519-232-64

Query Match 55.2%; Score 1629; DB 4; Length 604;
Best Local Similarity 57.4%; Pred. No. 1.2e-157;
Matches 343; Conservative 81; Mismatches 130; Indels 44; Gaps 10;
QY 11 AFSDDSDAS-----VVEGDADADADVEALRLRLSNLAAAF---SPED 50
Db 15 AFSDDNDISGSSSICCVAAATTTTAAENSLSTFPDAAALLRLSENLSLFPQSLSLSD 74
QY 51 FAFIADARIAVPGGGGGDLRVHRCVLSARSPPFLRGVFAARRAAAAGGGEDGSR--- 107
Db 75 SDSFADAKIVV---SGDSREVAHVHRCVLSRSSRSPFSAFASAKREK-----ERDKERVVK 127
QY 108 LELRELLGGGEEVEGYEALRLVLDYLSGRVGLPKAACLCVDEDCAHVGHCPAVAFM 167
Db 128 LELKDLAG---DFEVGDFSVAVGLYSGKVRNLPKICVDEDCSHACRPVDFV 183
QY 168 AQVLPFAASTFOVAELTNLFQRLDLVDLVKVEVDNLLLSVANLCNCKSKMLERCLDMV 227
Db 184 VEVLYLSHKFEIVELVSLYQRHLLDILDKIAPDDVVLVLSVAEMCGNACDGLARCDKI 243
QY 228 VRSLDMITLEKSLPPDVIKQIIDARLSGLISPENKGFPMKHVRIHRLSDSDVLR 287
Db 244 VRSDIDVTIDKSLPQNVVKQIIDTRKELGTFEPGRVDFPKVKRIHRALESDDVLR 303
QY 288 MLLTEGQTNLDDAFALHYAVEHCDISKITTELDLALADVNHRNPRGYTVLHIAARRRPEK 347
Db 304 MLLKERHTTDDAYALHYAVAHCAKTTTELEGLADVNLRNLRGHTVLRHVAAMRKEPK 363
QY 348 IIVSLITKGARPADTVFGRKAVQISKRITKQDYGVTTEGKPSKDRCLCIEILEQAE 407
Db 364 IIVSLITKGARPSDITSDKKALQIAKRLTKAVDPYKTEQKQAPKDRCLCIEILEQAE 423
QY 408 RDPQGEASVSLAMAGESLRGLLYENRVALARIMFPMPEARVAMDAQVDTGLEFNLG 467
Db 424 REPLLGEASVSLAKAGDDLRLMKLLYLNVRVALARILFFMEAKVAMDAQVDTGSEFFL 483
QY 468 GANPPPERQRTTVDLNESPFIMKEEHLARMTALSKTVELGKRPFRCSNVLDKIM--DE 525
Db 484 NI---ADARRNAVLDNEAPFIIKEHLORMKALSKTVLGKFFPFRCSNVLDKIMAD 540
QY 526 TDPVSLGRDTSAE---KRRKPHDLQDVLOKAFHEKEDNDRSGLSSSSSSTSGAIRP 580
Db 541 SQLAFGLKDTPEERKQRKRVLELQDALTKAFTEDEKFAKTNMSSSCSSTSGKGVDP 596

RESULT 4
US-08-989-478-2
; Sequence 2, Application US/08989478
; Patent No. 5986082
; GENERAL INFORMATION:
; APPLICANT: Uknes, Scott
; APPLICANT: Hunt, Michelle
; APPLICANT: Steiner, Henry-York
; APPLICANT: Ryale, John
; TITLE OF INVENTION: ALTERED FORMS OF THE NIM1 GENE CONFERRING
; TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESS: No. 5986082artis Corporation
; STREET: 3054 Cornwallis Road
; CITY: Research Triangle Park
; STATE: No. 5986082th Carolina
; COUNTRY: USA
; ZIP: 27709
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/989,478
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/033,177
; FILING DATE: 13-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,379
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,382
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,730
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,021
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,022
; FILING DATE: 10-JAN-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Meigs, J. Timothy
; REGISTRATION NUMBER: 38,241
; REFERENCE/DOCKET NUMBER: PF/5-21214/Pl/CGC1911
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (919) 541-8587
; TELEFAX: (919) 541-8689
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 593 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLSCULE TYPE: protein
; US-08-989-478-2
Query Match 43.2%; Score 1276; DB 2; Length 593;
Best Local Similarity 47.2%; Pred. No. 1.5e-121;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;
QY 5 TSHVTNAFSDSASVVEGDADADVEALRSLNLAARFSPEDFAFLADARIVPGG 64
DB 17 TSFVATDNTDSSIVYLAARQVLTPDVSALQLLSNFSFVDPDP--FYSDAKLVL--- 71
QY 65 GCGGGLRVRHCVLSARFPLRGVARRAAAGGGGDCGSRRLRLRLGCGGGEVEVG 124
DB 72 -SDGREVSPHRCVLSARSPFKSALA--AAKKEKDSNNTAAVKLELKEI---AKDYEVG 124
QY 125 YEALRLVLDLYSGRVGDLPKAACLCVDECAHVGCCHPAVAFMAQVLPFAASTFOVAELTN 184
DB 125 FDSVVTVLAYVYSSRVPPKGVSECADENCCCHVACRPADVDFMLEVLYLAFIFKIPELIT 184
QY 185 LFORLLDVLDDKVEDNLLILSVANLCNCKSMKLLERCLDMVVRSLNLDMLTLEKSLPPD 244
DB 185 LYQRHLDDVDDKVVIEDTLVILKLANICGKACMKLLDRCKEIIIVKSNVDMVLSLEKSLPEE 244
QY 245 VIKQIIDARLSGLISPENKGFNKHVRRIRHRALDSDDELVRMLLTGEGOTNLDADAFALH 304
DB 245 LVKEIIDRRKELGLEVPKVK---KHVSNNVHKALDSDDIELVKLLKEDHTNLDACALH 300
QY 305 YAVEHCDSKITTELLDLALADVNRNPRGTYLVHIAARRBPKIIVSLTTHGARPADVTF 364
DB 301 FAVAYCNVKTATDILLKLDADVNRNPRGTYLVHIAARRBPKIIVSLTTHGARPADVTF 360
QY 365 DGRKAVOISKRLTKQGDYFGVTBEGKPSKDLRCIEILEQAERDPOLGEASVSLANAGE 424
DB 361 EGRALMIKQATWAVECNPIPEOCKSLKGRLCVEILEQEDKREQIPRDVPPPSFAVAAD 420
QY 425 SLRGLLYLENRVALARIMFMEARVAMDIQVDTGLEFNLGSGANPPPP---QRTTV 480
DB 421 ELKMTLLDLENRVALAQRLPTEAQAAMEIAEMKGTCEFIIVTS---LEPDLRTGTKRTSP 477
QY 481 DLNESPFIMKEEHLARMTALSKTVELGKRPFRPCSNVLDKIMD--DETDPVSLGRDTSAEK 539
DB 478 GVKIAPFRILBEHQSLKLSKTVELGKRPFRPCSNVLDKIMD--DETDPVSLGRDTSAEK 537
QY 540 R---KRFHDLQDVLOKAFHEDKEENDRSGLSSSSSSTS 574
DB 538 RLQKKQYMEIQETLKKAFSEDNLELGNSSLTDSTSTS 576
RESULT 5
US-08-996-685-2
; Sequence 2, Application US/08996685
; Patent No. 6031153
; GENERAL INFORMATION:
; APPLICANT: Ryale, John
; APPLICANT: Friedrich, Leslie
; APPLICANT: Uknes, Scott
; APPLICANT: Molina, Antonio
; APPLICANT: Rues, Wilhelm
; APPLICANT: Knauf-Beiter, Gertrude
; APPLICANT: Kung, Ruth
; APPLICANT: Kessmann, Helmut
; APPLICANT: Oostendorp, Michael
; TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: No. 6031153artis Corporation
; STREET: 3054 Cornwallis Road
; CITY: Research Triangle Park
; STATE: No. 6031153th Carolina
; COUNTRY: USA
; ZIP: 27709
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/996,685
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/761,543
; FILING DATE: 6-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,378
; FILING DATE: 27-DEC-1996

;; PRIOR APPLICATION DATA: US 60/034,379
;; FILING DATE: 27-DEC-1996
;; PRIOR APPLICATION DATA: US 60/034,382
;; FILING DATE: 27-DEC-1996
;; PRIOR APPLICATION DATA: US 60/034,730
;; FILING DATE: 10-JAN-1997
;; PRIOR APPLICATION DATA: US 60/035,021
;; FILING DATE: 10-JAN-1997
;; PRIOR APPLICATION DATA: US 60/035,022
;; FILING DATE: 10-JAN-1997
;; PRIOR APPLICATION DATA: US 60/035,024
;; FILING DATE: 10-JAN-1997
;; PRIOR APPLICATION DATA: US 08/875,015
;; FILING DATE: 16-JUL-1997
;; ATTORNEY/AGENT INFORMATION:
;; NAME: Meigs, J. Timothy
;; REGISTRATION NUMBER: 38,241
;; REFERENCE/DOCKET NUMBER: PF/5-21215/PI/CGC1912
;; TELEPHONE: (919) 541-8587
;; TELEFAX: (919) 541-8689
;; INFORMATION FOR SEQ ID NO: 2:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 593 amino acids
;; TYPE: amino acid
;; TOPOLOGY: linear
;; MOLECULE TYPE: protein
US-08-996-685-2

Query Match 43.2%; Score 1276; DB 3; Length 593;
Best Local Similarity 47.2%; Pred. No. 1.5e-121;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNAPSDDSASVEEGDADADVEALRRLSDNLAAPSPDPEDFAFLADARIAVPGG 64
DB 17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNFSFVSFDPD--FYSDAKLVL--- 71
QY 65 GGGGDLRVHRCVLSARSFPLRGVFAARRAAAAGGGEDGSRRLRLRELLGGGGEVEVG 124
DB 72 -SDGREVSPHRCVLSARSFPLRGVFAARRAAAAGGGEDGSRRLRLRELLGGGGEVEVG 124
QY 125 YEALRLVLDLYSGRVDLPKAAACLCVDEDCAHVGHCHPAVAFMAQVLFPAASTFOVLELTN 184
DB 125 FDSVTVTLAYVYSSRVPPKGVSECADENCCCHVACRPVDFMLEVLYLAFIKIPELIT 184
QY 185 LFQRLLDVLDKVEVDNLLILSVANLQKSCMKLLERCLDMVVRNSLDMITLKSLLPD 244
DB 185 LQQRLLDVKVQVIEDTLVILKLANICGAKMKLLDRCKEIIIVKSNVDMVMSLEKSLPEE 244
QY 245 VIKQIDARLSGLISPENKGFPHKRRRIHRALEDSDVVELVRLMLLTGQNTLDDAFALH 304
DB 245 LVKEIIDRRKELGLEVPVKV---KHVSNVHKALEDSDIELVKLLKEDHTNLDACALH 300
QY 305 YAVEHCDSKITTEILDALADNVHNRPRGYTVLHIAARRRPKIIIVSLITKGRADVTF 364
DB 301 FAVAYCNVKTATDLLKLDIADNVHNRPRGYTVLHIAARRRPKIIIVSLITKGRADVTF 360
QY 365 DGRKAVQISKRLTKQDYGVTVEEGKPKDKRLCTEILEQARRDPQGEASVSLAMAGE 424
DB 361 EGRALMTAKQATMAVECNINIEQCKHSLKGLCVLEIIEQEDKREIQIPRDVPPPEFAVAD 420
QY 425 SURGLLYLENVALARINFMPEARVAMIDIAQVGTLEFNLGSGGANPPPER----QRTTV 480
DB 421 ELKMTLLDENRVALAQRLFPTEQAAMEIABMKGTCEFIVTS---LEPDRLTGTRKTP 477
QY 481 DLNESPFIMKEBHLARMTALSKTVELGKRFPPRCNSVLDKIMD-DETPVSLGRDTSAEK 539

DB 478 GVKIAPFRILBEHQSRKALSKTVELGKRFPPRCSAVLDDQIMNCEDLTQLACGBDDTAEK 537
QY 540 R-----KRFHLDQVLRQAFHEDKEENDRSGLSSSSSSSTS 574
DB 538 RLQKKQRYMEIQETLKKAFFSEDNLELGNSSLTDSSTS 576

RESULT 6
US-08-880-179-3
; Sequence 3, Application US/08880179
; Patent No. 6091004
; GENERAL INFORMATION:
; APPLICANT: Ryals, John
; APPLICANT: Delaney, Terry
; APPLICANT: Friedrich, Leslie
; APPLICANT: Weymann, Kristianna
; APPLICANT: Lawton, Kay
; APPLICANT: Ellis, Daniel
; APPLICANT: Uknes, Scott
; APPLICANT: Jesse, Taco
; APPLICANT: Vos, Pieter
; TITLE OF INVENTION: GENE ENCODING A PROTEIN INVOLVED IN THE
; TITLE OF INVENTION: SIGNAL TRANSDUCTION CASCADE LEADING TO SYSTEMIC ACQUIRED RESIS
; TITLE OF INVENTION: IN PLANTS
; NUMBER OF SEQUENCES: 17
; CORRESPONDENCE ADDRESS:
; ADDRESS: No. 6091004artis Corporation
; CITY: Tarrytown
; STATE: New York
; COUNTRY: USA
; ZIP: 10591
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/880,179
; FILING DATE:
; CLASSIFICATION: 800
; ATTORNEY/AGENT INFORMATION:
; NAME: Meigs, J. Timothy
; REGISTRATION NUMBER: 38,241
; REFERENCE/DOCKET NUMBER: CGC 1909
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (919) 541-8587
; TELEFAX: (919) 541-8689
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 593 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-880-179-3

Query Match 43.2%; Score 1276; DB 3; Length 593;
Best Local Similarity 47.2%; Pred. No. 1.5e-121;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNAPSDDSASVEEGDADADVEALRRLSDNLAAPSPDPEDFAFLADARIAVPGG 64
DB 17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNFSFVSFDPD--FYSDAKLVL--- 71
QY 65 GGGGDLRVHRCVLSARSFPLRGVFAARRAAAAGGGEDGSRRLRLRELLGGGGEVEVG 124
DB 72 -SDGREVSPHRCVLSARSFPLRGVFAARRAAAAGGGEDGSRRLRLRELLGGGGEVEVG 124
QY 125 YEALRLVLDLYSGRVDLPKAAACLCVDEDCAHVGHCHPAVAFMAQVLFPAASTFOVLELTN 184
DB 125 FDSVTVTLAYVYSSRVPPKGVSECADENCCCHVACRPVDFMLEVLYLAFIKIPELIT 184

Qy 185 LFORLLDLVDKVEVDNLLILSVANLCNCKMCLLERCLDMVRSNLDMLTLEKSLPPD 244
Db 185 LYQRHLLDLDVVKVIEDTLVLKLANICGKACMKLLDRCKEIIVKSNDVMSLEKSLPEE 244
Qy 245 VIKQIIDARLSIGLISPNKGFPPNKHVRRIHRAALDSDDELVRMLLTGQTNLDDAFALH 304
Db 245 LVKEIIDRRKELGLEVPKV-----KHVSNVHKALDSDDEILVKULLKEDHTNLDACALH 300
Qy 305 YAVEHCDSKITTELLDLALADVNHNRNPRGYTVLHIAARRRREPKEIVSLTITKGARPAADVTF 364
Db 301 FAVAYCNVKTATDLKLADLVNHRNPRGYTVLHVAAMRKEPQLITLSLEKGAASEATL 360
Qy 365 DGRKAVQISKRLTKQDYGFGYTEEGKSPKDLRCIETILEQAERRDPQLGEASVSLAMAGE 424
Db 361 EGRTALMIAKQATWAVECNIPEQCKHSLKRLCVELLEQEDKREQIPRDVPPPSFAVAAD 420
Qy 425 SLRGLLYLNRVALARIMFMEARVAMDIAQVDTGLEFNLGSGANPPPER-----QRTTV 480
Db 421 ELKMTLLDLNRVALAQRLLFTEAQAAMEIAEMKGTCEFIIVTS---LEPDRLTGKTSTP 477
Qy 481 DLNESPFIMKEEHLARMTALSKTVELGKRPFRCSNVLDKIMD-DETPVSLGRDTSAEK 539
Db 478 GVKIAPFRILEEHQSRLKSKTVELGKRPFRCSAVLDQIMNCEDLTQLACGEDDTAEK 537
Qy 540 R----KRPHDLQDVLOKAFHEDKEENDRSGLSLSSSSSTS 574
Db 538 RLQKKQRYMEIQETLKKAFSEDNLELGNLSLTDSTSTS 576

RESULT 7

US-08-989-478-8
; Sequence 8, Application US/08989478
; Patent No. 5986082
; GENERAL INFORMATION:
; APPLICANT: Hunt, Scott
; APPLICANT: Kunes, Michelle
; APPLICANT: Steiner, Henry-York
; APPLICANT: Ryals, John
; TITLE OF INVENTION: ALTERED FORMS OF THE NIM1 GENE CONFERRING
; TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: No. 5986082artis Corporation
; STREET: 3054 Cornwallis Road
; CITY: Research Triangle Park
; STATE: No. 5986082th Carolina
; COUNTRY: USA
; ZIP: 27709
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/989,478
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/033,177
; FILING DATE: 13-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,379
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,382
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,730
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,021
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 60/035,022
; FILING DATE: 10-JAN-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Meigs, J. Timothy
; REGISTRATION NUMBER: 38,241
; REFERENCE/DOCKET NUMBER: PP/5-21214/P1/CGC1911
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (919) 541-8587
; TELEFAX: (919) 541-8689
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 593 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-989-478-8
Query Match 43.0%; Score 1270; DB 2; Length 593;
Best Local Similarity 47.0%; Pred. No. 6.4e-121;
Matches 272; Conservative 113; Mismatches 166; Indels 28; Gaps 9;
Qy 5 TSHVTNAPSDSDSASVEEGDADADADVEALRRLLSDNLAAPRSPEDFAFLADARIAVPGG 64
Db 17 TSPVATONTDSSIIVYLAAEQVLTPGDVSAQLQLLSNPEAVFDAPDD--FYSDAKLVL--- 71
Qy 65 GGGGGLRVHRCVLSARSFPLRGVFARRAAAAAGCGGEGDSERLELRLGGGGEVEVG 124
Db 72 -SDGREVSFHRCVLSARSFPKSALA--AAKKEKDSNNTAAVKLELKEI-----AKDYEVG 124
Qy 125 YEALRLVLDVLYSGRVGDLPKAACLCVDEDCAHVGHCPAVAFMAQVLPFAASTFOVAELTN 184
Db 125 FDSVTVLAVYSGRVPPPGVSECADENCCHVACRPADVDFMLEVLVLAIFIKIPELIT 184
Qy 185 LFQRLRLDLVDKVEVDNLLILSVANLCNCKMCLLERCLDMVRSNLDMLTLEKSLPPD 244
Db 185 LYQRHLLDLDVVKVIEDTLVLKLANICGKACMKLLDRCKEIIVKSNDVMSLEKSLPEE 244
Qy 245 VIKQIIDARLSIGLISPNKGFPPNKHVRRIHRAALDSDDELVRMLLTGQTNLDDAFALH 304
Db 245 LVKEIIDRRKELGLEVPKV-----KHVSNVHKALDSDDEILVKULLKEDHTNLDACALH 300
Qy 305 YAVEHCDSKITTELLDLALADVNHNRNPRGYTVLHIAARRRREPKEIVSLTITKGARPAADVTF 364
Db 301 FAVAYCNVKTATDLKLADLVNHRNPRGYTVLHVAAMRKEPQLITLSLEKGAASEATL 360
Qy 365 DGRKAVQISKRLTKQDYGFGYTEEGKSPKDLRCIETILEQAERRDPQLGEASVSLAMAGE 424
Db 361 EGRTALMIAKQATWAVECNIPEQCKHSLKRLCVELLEQEDKREQIPRDVPPPSFAVAAD 420
Qy 425 SLRGLLYLNRVALARIMFMEARVAMDIAQVDTGLEFNLGSGANPPPER-----QRTTV 480
Db 421 ELKMTLLDLNRVALAQRLLFTEAQAAMEIAEMKGTCEFIIVTS---LEPDRLTGKTSTP 477
Qy 481 DLNESPFIMKEEHLARMTALSKTVELGKRPFRCSNVLDKIMD-DETPVSLGRDTSAEK 539
Db 478 GVKIAPFRILEEHQSRLKSKTVELGKRPFRCSAVLDQIMNCEDLTQLACGEDDTAEK 537
Qy 540 R----KRPHDLQDVLOKAFHEDKEENDRSGLSLSSSSSTS 574
Db 538 RLQKKQRYMEIQETLKKAFSEDNLELGNLSLTDSTSTS 576
RESULT 8
US-08-996-685-8
; Sequence 8, Application US/08996685
; Patent No. 6031153
; GENERAL INFORMATION:
; APPLICANT: Ryals, John
; APPLICANT: Friedrich, Leslie
; APPLICANT: Kunes, Scott
; APPLICANT: Molina, Antonio
; APPLICANT: Rues, Wilhelm
; APPLICANT: Knaus-Beiter, Gertrude

```

; APPLICANT: Kung, Ruth
; APPLICANT: Kessmann, Helmut
; APPLICANT: Oostendorp, Michael
; TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSSEE: No. 6031153artis Corporation
; STREET: 3054 Cornwallis Road
; CITY: Research Triangle Park
; STATE: No. 6031153th Carolina
; COUNTRY: USA
; ZIP: 27709
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US 08/996,685
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/761,543
; FILING DATE: 6-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,378
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,379
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,382
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,730
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,021
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,022
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,024
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/875,015
; FILING DATE: 16-JUL-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Meigs, J. Timothy
; REGISTRATION NUMBER: 38,241
; REFERENCE/DOCKET NUMBER: PF/5-21215/P1/CGC1912
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (919) 541-8587
; TELEFAX: (919) 541-8689
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 593 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-996-685-8

Query Match 43.0%; Score 1270; DB 3; Length 593;
Best Local Similarity 47.0%; Pred. No. 6 4e-121;
Matches 272; Conservative 113; Mismatches 166; Indels 28; Gaps 9;

QY 5 TSHVTNAPSDDSASVEEGDADADVEALRRLLSDNLAAAFRSPEDFAFLADARIAVPGG 64
Db 17 TSFVATDNTSSIVYLAEEQVLTPDVSALQLLSNSFEAVFDAPDD--FYSDAKLVL--- 71
QY 65 GGGGDLRVHRCVLSARSPLRGVFARRAAAAGGGEDGSRLELRLLGGGEEVEVG 124

72 -SDGREVSHRCVLSARSFFKSALA--AAKKEKSDNNNTAAVKLEKEI-----AKOYEVG 124
125 YEALRLVLDVLYSGRVGDLPKAAACLCVDEDCAHVGHCHPAVAFMAQVLFRAASTFQVABLTN 184
125 FDSVVTVLAVYISYRVRPPPKGVSECADENCCHVACRPADVDFMELVLYLAFIKPELIIT 184
125 LFQRRLLDVLDKVEVDNLLILSVANLCNCKSMKLLERCLDMVVRNMLDMITLKSPLPD 244
125 LYQRHLLDVVDKVVIEDTLVLKLANICGKACMKLLDRCKEIIIVKSNVDMVSLKSIPPE 244
245 VIKQIDARLSGLISPNKGFNKHVRRTHRALDSDDELVRMLLTGEGOTNLDLDAFALH 304
245 LVKEIIDRRKELGLEVEPKV-----KHVSNVHKALDSDDIELVKLLKEDHTNLDLDAALH 300
305 YAVEHCDSKITTELLDLALADVNRNPRGYTVLHIAARRREPKEIIIVSLLTKGARPADVT 364
301 FAVAYCNVKTATDLKLDLADVNRNPRGYTVLHVAAMRKEPOLILSLEKGSASEATL 360
365 DGRKAVQISKRLTKQGYFGVTBEGKSPKDRICIELEQAEERDPOLGEASVSLAMAGE 424
361 EGRTALMIATKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFVAAD 420
425 SLRGLIYLRNVALARIMFMEARVAMDAQVDGTLLEFNLGSGANPPPER-----QRTTV 480
421 ELKMTLLDLNRVALAQRLLPTEAQAAMETAEKGTCEFIYTS---LEPDLTGTKRTSP 477
481 DLNESPFIKKEHLARMTALSKTVELGKFRFFPCSNVLDKIMD-DETDPSVSLGRDRTAEK 539
478 GVKIAPRILEEHSQSLKALKSKTVELGKFRFFPCSAVLQDQIMNCEDITQLACGDDTAEK 537
540 R-----KRFHLDQVLQKAFHEDKEENDRSLGSSSSSTS 574
538 RLQKKORYMEIQETLKKAFSEDNLELGNLSLTDSTSTS 576

RESULT 9
US-09-519-232-6
; Sequence 6, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTF2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
; LENGTH: 579
; TYPE: PRT
; ORGANISM: Brassica napus
; US-09-519-232-6

Query Match 41.4%; Score 1222.5; DB 4; Length 579;
Best Local Similarity 45.9%; Pred. No. 4 5e-116;
Matches 260; Conservative 110; Mismatches 160; Indels 37; Gaps 10;

QY 14 DSDSASVEEGDADADADVEALRRLLSDNLAAAFRSPEDFAFLADARIAVPGGGGGDLRV 73
Db 27 NSGSTVXTPELXTRPEVSAPQLLSNSLESVDSPE--AFYSDAKLVL----SDDKEVSF 80
QY 74 HRCVLSARSPLRGVFARRAAAAGGGEDGSRLELRLLGGGEEVEVEALRLVLD 133
Db 81 HRCILSARS-----LFFKAALXAAEKVKQSTPKLELKT-----AAEYDVGDSVVAVLA 131
QY 134 YLYSGRVGDLPKAAACLCVDEDCAHVGHCHPAVAFMAQVLFRAASTFQVABLTLNFORLLDV 193
Db 132 YYISGRVVRPPPKGVSECADXSCCHVACRPADVDFMELVLYLAFVFOIQELVTMYQRHLLDV 191
QY 194 LDKVEVDNLLILSVANLCNCKSMKLLERCLDMVVRNMLDMITLKSPLFPDVIKQIIDAR 253

```



```
Db 192 VDKVXIEDTLVVLKLANICGKACKKLFKDKREIIVKSNVDVVTLLKSLPEXIAQVIDIR 251
Qy 254 LSLGSLSPENKGFNPKHVRRIHRAALSDSDVELVRMLLTGEGTNLDLDDAFALHYAVEHCDSE 313
Db 252 KELGLVAVAE---PEKHVSNIHKALESDDLDLVMLLKEGHTNLDLDEAVALLHFAVAYCDEK 307
Qy 314 ITTELDDALADVNRHNRPRGYTVLHIAARRREPKEIIVSLLTKGARPADVTFDGRKAVOIS 373
Db 308 TARNLLELGFADVNRNRPRGYTVIHVAAMRKEPTLIALLLTKGANALESMDLGRALLIA 367
Qy 374 KRLTKQGDYFGVTGKSPKDRLCIEILEQAER--RDPOLGEASVSLWAGESLGRLLY 432
Db 368 KOVTKAAECC--ILEKGKLAAGGVCEILKQDNTREPPEDVPSLVAADQFKIRLID 426
Qy 433 LENRVALARIMPMPEARVAMDIQAQVDGTLFNLGSGANPPPERQRTTVDLNESEPPIMKEE 492
Db 427 LENRVQMARCLYPMAEQVAMDFARMKGTREVV-----TTATDLHMEPPKPYEM 475
Qy 493 HLMRTALSKTVELQKRPFRPCSNVLDKIMDDE--TDPVSLGRDT---SAEKRKRPHDLQ 547
Db 476 HQSRLTALSKTVFGRKRPFRPCSKVLDLIDVSEDLTILALVEEDTPEQORQQRQRFMBIQ 535
Qy 548 DVLQKARHEDKEENDRSLGSSSSSTS 574
Db 536 EIVQMAFSKOKEDLGKSLASSSSTS 562
```

RESULT 10

US-09-519-232-20

; Sequence 20, Application US/09519232

; Patent No. 6528702

; GENERAL INFORMATION:

; APPLICANT: Salmeron, John

; APPLICANT: Weislo, Laura

; APPLICANT: Willits, Michael

; APPLICANT: Mengiste, Tesfaye

; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF

; FILE REFERENCE: S-30857A/RTP2095

; CURRENT APPLICATION NUMBER: US/09/519,232

; CURRENT FILING DATE: 2000-03-06

; NUMBER OF SEQ ID NOS: 74

; SOFTWARE: Patentin Ver. 2.1

; SEQ ID NO 20

; LENGTH: 600

; TYPE: PRT

; ORGANISM: Arabidopsis thaliana

US-09-519-232-20

```
Query Match 41.1%; Score 1213.5; DB 4; Length 600;
Best Local Similarity 45.8%; Pred. No. 3.9e-115;
Matches 277; Conservative 105; Mismatches 172; Indels 51; Gaps 17;
```

```
Qy 1 MEPTSHVTNAPSDDSSASVEGD---ADADAD-----VEALRRSLDNLAAPR 46
Db 1 MATTTTTTARFSDSYEFNTSGNSFFAAESSLDYPTFTLTPPEVSALKLLSNCLESVFD 60
Qy 47 SPEDFAFLADARIAVPGGGGGDLVRHRCVLSARSFPLRGVFAARRAAAAGGGEDGSE 106
Db 61 SPE--TFYSDAKVL---AGGREVSFHRCLISARIP-----VF-KSALATVKEQKSSITV 109
Qy 107 RLEARELLGGGEEVEVGEALRLVLDLYSGRVDLPKAAACLCVDEDCAHVGHCPAVAF 166
Db 110 KLQKLEI-----ARDYEVGDSVVAVLAYVYSGRVSPPKASACVDDDCCHVACRSKVDF 165
Qy 167 MAQVLPAASTFQVAELTNLFORLLDVLKVEVDNLLILSVANLCKNSCMKLLERCIDM 226
Db 166 MVEVLVLSFVFQIQLVTLYERQFLEIVDKVVVEDILVFKLDTLGGTYKKLLDRCIEI 225
Qy 227 VVRNLDMTLTKSLPPDVIKQIDARLSLGLISPENKGFNPKHVRRIHRAALSDSDVELV 286
Db 226 IVKSDIELVLSLEKSLPQHIFKQIIDREALCLPEPKLE----RHVKNIYKALDSDDELV 281
```

```
Qy 287 RMLLTGQTNLDDAFALHYAVEHCDSEKITTELLDALADVNRHNRPRGYTVLHIAARRREP 346
Db 282 KMLLLEHTNLDEAYALHFAIAHCAVKTAYDLELELADVNLNRPRGYTVLHVAAMRKEP 341
Qy 347 KIIVSLTKGARPADVTFDGRKAVOISKRLTKQGDYFGVTGKSPKDRLCIEILBQAE 406
Db 342 KLIISLLMKGANILDTLDCRTALVIVKRLTKADDTYKSTEDGTPSLKGGLCIEVLEH-E 400
Qy 407 RRDPLG--EASVSLWAGESLGRLLYLNVRVALARIMPMPEARVAMDIQAQVDGTLBPN 464
Db 401 QKLEYLSPIEASLSLPTVPEELRMLLYENRVALARLLPPVETETVQGIKLEBETCEFT 460
Qy 465 LGSGANPPPE--RQRTTVDLNESEPFIMKEBHARMTALSKTVELGKRPFRPCSNVLDKIM 522
Db 461 -ASSLEPDHIGEKRTSLDNLNMAFQIHEKHLKRLCALCKTVELGKRYFKRCS--LDHFM 517
Qy 523 DDE--TDPVSLGRDT---SAEKRKRPHDLQDVLQKAFHEKDEENDRSLGSSSSSTSIGA 577
Db 518 DTEDLNHLASVEEDTPEKRLQKQRYMELQETLMKTFSEDKEE---CGKSSTPKPTS--A 572
Qy 578 IRPRR 582
Db 573 VRSNR 577

RESULT 11
US-09-519-232-72
; Sequence 72, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 72
; LENGTH: 601
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-09-519-232-72

Query Match 41.1%; Score 1213.5; DB 4; Length 601;
Best Local Similarity 45.8%; Pred. No. 4e-115;
Matches 277; Conservative 105; Mismatches 172; Indels 51; Gaps 17;
```

```
Qy 1 MEPTSHVTNAPSDDSSASVEGD---ADADAD-----VEALRRSLDNLAAPR 46
Db 2 MATTTTTTARFSDSYEFNTSGNSFFAAESSLDYPTFTLTPPEVSALKLLSNCLESVFD 61
Qy 47 SPEDFAFLADARIAVPGGGGGDLVRHRCVLSARSFPLRGVFAARRAAAAGGGEDGSE 106
Db 62 SPE--TFYSDAKVL---AGGREVSFHRCLISARIP-----VF-KSALATVKEQKSSITV 110
Qy 107 RLEARELLGGGEEVEVGEALRLVLDLYSGRVDLPKAAACLCVDEDCAHVGHCPAVAF 166
Db 111 KLQKLEI-----ARDYEVGDSVVAVLAYVYSGRVSPPKASACVDDDCCHVACRSKVDF 166
Qy 167 MAQVLPAASTFQVAELTNLFORLLDVLKVEVDNLLILSVANLCKNSCMKLLERCIDM 226
Db 167 MVEVLVLSFVFQIQLVTLYERQFLEIVDKVVVEDILVFKLDTLGGTYKKLLDRCIEI 226
Qy 227 VVRNLDMTLTKSLPPDVIKQIDARLSLGLISPENKGFNPKHVRRIHRAALSDSDVELV 286
Db 227 IVKSDIELVLSLEKSLPQHIFKQIIDREALCLPEPKLE----RHVKNIYKALDSDDELV 282
Qy 287 RMLLTGQTNLDDAFALHYAVEHCDSEKITTELLDALADVNRHNRPRGYTVLHIAARRREP 346
Db 283 KMLLLEHTNLDEAYALHFAIAHCAVKTAYDLELELADVNLNRPRGYTVLHVAAMRKEP 342
```

347 KLIIVLLTKGAPADVTGDKAVOISKRLTKQDYGFGVTBEGKPSKDRLCIBILEQAE 406
343 KLIIVLLTKGAPADVTGDKAVOISKRLTKQDYGFGVTBEGKPSKDRLCIBILEQAE 401
407 RRDPOG--EASVSLAMAGESLGRLLYLENRVALARIMFPMEARVAMDIQVDTGLEFN 464
402 QKLEVLSPLEASLSLPVPEELRMELLYENRVALARILFFVETETVQGIKLEETCEFT 461
465 LGSANPPPE--RQRTVDLNPSPIMKEHLARMTALSKTVELGKRPFRCSNVLDKIM 522
462 -ASSLEPDHIGKXTSLDNLNAPFQIHEKHLRRLALCKTVELGKRYFKCS--LDHFM 518
523 DDE--TDPVSLGRDT---SAEKRRKFDHLDVLOKAFHEDKENDRSLGSSSSSTSGA 577
519 DTDENHLASVEDTPEKRLQKRYRMELQETLMTFTSEDKEE---CGKSTPKPTS--A 573
578 IRPRR 582
574 VRSNR 578

RESULT 12
US-08-989-478-12
; Sequence 12, Application US/08989478
; Patent No. 5986082
; GENERAL INFORMATION:
; APPLICANT: Utnes, Scott
; APPLICANT: Hunt, Michelle
; APPLICANT: Steiner, Henry-York
; APPLICANT: Ryals, John
; TITLE OF INVENTION: ALTERED FORMS OF THE NIM1 GENE CONFERRING
; TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: No. 5986082artis Corporation
; STREET: 3054 Cornwallis Road
; CITY: Research Triangle Park
; STATE: No. 5986082th Carolina
; COUNTRY: USA
; ZIP: 27709
; COMPUTER READABLE FORM: disk
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/989,478
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/033,177
; FILING DATE: 13-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,379
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,382
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,730
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,021
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,022
; FILING DATE: 10-JAN-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Meigs, J. Timothy
; REGISTRATION NUMBER: 36,241
; REFERENCE/DOCKET NUMBER: PF/5-21214/P1/CGC1911
; TELECOMMUNICATION INFORMATION:

TELEPHONE: (919) 541-8587
TELEFAX: (919) 541-8689
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 521 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-989-478-12

Query Match 40.3%; Score 1188.5; DB 2; Length 521;
Best Local Similarity 48.0%; Pred. No. 1.1e-112;
Matches 251; Conservative 100; Mismatches 149; Indels 23; Gaps 7;

QY 5 TSHVTNFAFSDSASVEEGDADADAVEALRRLRSDNLAAFRSPEDPAFLADARIAPGG 64
Db 17 TSFVATDNTDSSIVYLAEEQVLGTGPDVSALQQLSSPESVFDSPDD--FYSDAKLVL-- 71
QY 65 GGGGDLRVHRCVLSARSPTLRGVFARRARAAAAGGGGDSERLELRLLGGGEEVEVG 124
Db 72 -SDGREVSFHRVLSARSFFKSALA--AAKKEKDSNNTAAVKLEKEI-----AKDYEVG 124
QY 125 YEALRLVLDLYLSGRVGDLPKAACLCVDEDCAHVGHCHPAVAFMAQVLFPAASTFOVABL 184
Db 125 FDSVTVTLAVYVSRRVPPKGVSECADENCCHVACRPVDFMLVLYLAFIPKIPELIT 184
QY 185 LFORLLDVLQKVEVDNLLILSVANILCNKSKMLERCLDMVYRSNLDMLTLEKSLPPD 244
Db 185 LYQRHLLDVLQKVEVDNLLILSVANILCNKSKMLERCLDMVYRSNLDMLTLEKSLPPD 244
QY 245 VIKOIIDARLSGLISPENKGFNPKVRRIRHRLDSDVVELVRLMLTTEGQTNLDDAFALH 304
Db 245 LVKEIIDRRKELGVEVPKV-----KHVSNVHKALDSDDIELVLLKXEDHTNLDACALH 300
QY 305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKEIIVSLITKGARPAVTF 364
Db 301 FAVAYCNVKTATLLKLDLADVNHRNPRGYTVLHIAARRREPKEIIVSLITKGARPAVTF 360
QY 365 DGRKAVQISKRLTKQDYGFGVTBEGKPSKDRLCIBILEQAEARDDPOLGEASVSLAMAGE 424
Db 361 EGRTALMIKQATWAVECNPIEQCKHSLKRLCEVEILEQEDKREQIPRDVPPSFVAAD 420
QY 425 SLRGLLYLENRVALARIMFPMEARVAMDIQVDTGLEFNLSGSGANPPPER---QRTTV 480
Db 421 ELKWTLLDENRVALARILFFTEAQAAMEIAEMKGTCEFI VTS--LEPDLRTGKRTSP 477
QY 481 DLNESPPIMKEHLARMTALSKTVELGKRPFRCSNVLDKIMD 523
Db 478 GVKIAPFRILBEHOSRLKALSKTVELGKRPFRCSNVLDKIMN 520

RESULT 13
US-08-996-685-12
; Sequence 12, Application US/08996685
; Patent No. 6031153
; GENERAL INFORMATION:
; APPLICANT: Ryals, John
; APPLICANT: Friedrich, Leslie
; APPLICANT: Utnes, Scott
; APPLICANT: Molina, Antonio
; APPLICANT: Ruess, Wilhelm
; APPLICANT: Knauf-Beiter, Gertrude
; APPLICANT: Kung, Ruth
; APPLICANT: Kessmann, Helmut
; APPLICANT: Costendorp, Michael
; TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: No. 6031153artis Corporation
; STREET: 3054 Cornwallis Road
; CITY: Research Triangle Park
; STATE: No. 6031153th Carolina
; COUNTRY: USA


```

; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 469 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-989-478-10

Query Match          38.4%; Score 1134; DB 2; Length 469;
Best Local Similarity 51.4%; Pred. No. 3.6e-107;
Matches 233; Conservative 89; Mismatches 115; Indels 16; Gaps 5;

QY 131 VLDYLSGRVGLPKAACLVDVEDCAHVGHCHPAVAFMAQVLFPAASTFQVAELTNLFORRL 190
Db 7 VLVYVSSRVPPKGVSECADENCCHVACRPVDFMLEVLYLAFIFKIPELITLYQRHL 66
QY 191 LDVLDKVEVDNLLILSVANLCNCKMKLLERCLDMVVRSLDMITLTKSLPPDVVKI 250
Db 67 LDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNDVMSLEKSLPEELVK 126
QY 251 DARLSGLISPENKGFPPNKHVRRIHRAALSDSDVELVRMLLTGQTNLDDAFALHYAVEHC 310
Db 127 DRKELGLEVPVKV----KHVSNVHKAALSDSDIELVKLLKEDHTNLDACALHFAVAYC 182
QY 311 DSKITTELLDALADVNHRNPRGYTVLHIAARRRPKIIIVSLITKGARPAVTFPGRKAV 370
Db 183 NVKATDILLKLDADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGSASEATLEGRAL 242
QY 371 QISKRLTKQGYFGVTEGKPKDRCLCEILEQAEERDPQGEASVSLAMAGESLGRLL 430
Db 243 MIAKQATWAVECNPIPEOCKSLKRLCVLEILEQEDKEQIPROVPPPSFAVADELKMTL 302
QY 431 LYLENRVALARIMFPMEARVAMIDIAQVDTGLEFNLGSGANPPPER----QRTVDLNSP 486
Db 303 LDLENRVALAQRLLPTEAQAAMEIAEMKGTCEFVTS---LEPDLRTGKRTSPGVKIAP 359
QY 487 FIMKEEHLARMTALSKTVELGKRFPRCSNVLDKIMD-DETPVSLGRDTSAEKR----K 541
Db 360 FRILEHQSLKALSKTVELGKRFPRCSAVLDQIMNCBDLTQLACGEDDTAEKRLQKKQ 419
QY 542 RFDLDQVLOKAFHEDKEENDRSGLSSSSSTS 574
Db 420 RYMEIQETLKKAFSDNGLNLSLTDSTSTS 452

RESULT 15
US-08-996-685-10
; Sequence 10, Application US/08996685
; Patent No. 6031153
; GENERAL INFORMATION:
; APPLICANT: Ryals, John
; APPLICANT: Friedrich, Leslie
; APPLICANT: Uken, Scott
; APPLICANT: Molina, Antonio
; APPLICANT: Russ, Wilhelm
; APPLICANT: Knauf-Beiter, Gertrude
; APPLICANT: Kung, Ruth
; APPLICANT: Kessmann, Helmut
; APPLICANT: Oostendorp, Michael
; TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: No. 6031153artis Corporation
; STREET: 3054 Cornwallis Road
; CITY: Research Triangle Park
; STATE: No. 6031153th Carolina
; COUNTRY: USA
; ZIP: 27709
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/996,685
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/761,543
; FILING DATE: 6-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,378
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,379
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,382
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,730
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,021
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,022
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,024
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/875,015
; FILING DATE: 16-JUL-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Meigs, J. Timothy
; REGISTRATION NUMBER: 38,241
; REFERENCE/DOCKET NUMBER: PF/5-21215/P1/CGC1912
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (919) 541-8587
; TELEFAX: (919) 541-8689
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 469 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-996-685-10

Query Match          38.4%; Score 1134; DB 3; Length 469;
Best Local Similarity 51.4%; Pred. No. 3.6e-107;
Matches 233; Conservative 89; Mismatches 115; Indels 16; Gaps 5;

QY 131 VLDYLSGRVGLPKAACLVDVEDCAHVGHCHPAVAFMAQVLFPAASTFQVAELTNLFORRL 190
Db 7 VLVYVSSRVPPKGVSECADENCCHVACRPVDFMLEVLYLAFIFKIPELITLYQRHL 66
QY 191 LDVLDKVEVDNLLILSVANLCNCKMKLLERCLDMVVRSLDMITLTKSLPPDVVKI 250
Db 67 LDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNDVMSLEKSLPEELVK 126
QY 251 DARLSGLISPENKGFPPNKHVRRIHRAALSDSDVELVRMLLTGQTNLDDAFALHYAVEHC 310
Db 127 DRKELGLEVPVKV----KHVSNVHKAALSDSDIELVKLLKEDHTNLDACALHFAVAYC 182
QY 311 DSKITTELLDALADVNHRNPRGYTVLHIAARRRPKIIIVSLITKGARPAVTFPGRKAV 370
Db 183 NVKATDILLKLDADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGSASEATLEGRAL 242
QY 371 QISKRLTKQGYFGVTEGKPKDRCLCEILEQAEERDPQGEASVSLAMAGESLGRLL 430
Db 243 MIAKQATWAVECNPIPEOCKSLKRLCVLEILEQEDKEQIPROVPPPSFAVADELKMTL 302
QY 431 LYLENRVALARIMFPMEARVAMIDIAQVDTGLEFNLGSGANPPPER----QRTVDLNSP 486
Db 303 LDLENRVALAQRLLPTEAQAAMEIAEMKGTCEFVTS---LEPDLRTGKRTSPGVKIAP 359
```

Qy 487 FIMKEEHLARMTALSKTVELGKRPFRPCSNVLDKIMD-DETDVPSLGRDTSAEKR-----K 541
| : ||| : : ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| :
Db 360 FRILEEHQSRKLKALSKTVELGKRPFRPCSAVLQIMNCEDLTQLACGEDDTAEKRLQKKQ 419
| : ||| : : ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| :
Qy 542 RFHDLQDVLOKAFHEDKEENDRSGLSSSSSSTS 574
| : ||| : : ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| :
Db 420 RYMEIQETLKKAFSEDNLELGNLSLTDSTSSTS 452
| : ||| : : ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| :

Search completed: September 14, 2004, 00:50:13
Job time : 36 secs

THIS PAGE BLANK (USPTO)